UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

Selassie Edwards, individually and on behalf of all others similarly situated, Plaintiffs, v. Unilever United States, Inc., Defendant.	Case No.1:26-cv-6792 **CLASS ACTION COMPLAINT** **JURY TRIAL DEMANDED**

Plaintiff Selassie Edwards ("Plaintiff" or "Edwards") brings this class action complaint on behalf of himself and all others similarly situated for damages and any other remedies available as a result of the unlawful actions of defendant Unilever United States, Inc. ("Defendant" or "Unilever"). Plaintiff makes the following allegations pursuant to the investigation of his counsel and based upon information and belief except as to the allegations specifically pertaining to him, which are based on his personal knowledge.

INTRODUCTION

1. This Complaint concerns the illegal, unfair, and deceptive labeling, marketing, and sale of certain of Defendant's Knorr-branded products as containing no artificial preservatives. This representation is false. In fact, each of the products contains a known artificial preservative: citric acid, as stated on each of the product's list of ingredients.

2. This Complaint is brought on behalf of purchasers of the following Knorr-branded products:

a. Knorr "Professional" products ("Professional"):

i. Alfredo Sauce Mix
ii. Demi-Glace Sauce Mix
iii. Beef Flavor Gravy Mix

iv. Brown Gravy Mix
v. Butternut Squash Soup Mix
vi. Italian Style Wedding with Meatballs Soup Mix
vii. Chicken Liquid Concentrated Base
viii. Cream of Mushroom Soup Mix
ix. Beef Flavored Vegetable and Barley Soup Mix
x. Hollandaise Sauce Mix
xi. Low Sodium Chicken Bouillon
xii. Low Sodium Beef
xiii. Low Sodium Brown Gravy Mix
xiv. Low Sodium Vegetable Bouillon
xv. Creamy Tomato and Roasted Red Pepper Soup Mix
xvi. Soup du Jour Mix Thai Chicken Curry

b. Knorr "Sides" products ("Sides"):

i. Cheddar Broccoli Pasta Side
ii. Cilantro Lime Rice
iii. Buffalo Chicken Flavor Pasta Side
iv. Stroganoff Pasta Side
v. Spanish Rice Side
vi. Chicken Fried Rice Side
vii. Cheddar Broccoli Rice Side
viii. Cheesy Cheddar Pasta Side
ix. Family Size Cheddar Broccoli Pasta Side

c. Knorr "Pasta Cups" products ("Pasta Cups"):

i. Teriyaki Noodles Pasta Cup
ii. Pad Thai Pasta Cup

The products identified above are collectively referred to here as the "Products" and each a "Product."

3. In the highly competitive food industry, companies often seek to gain an unfair advantage by misleading consumers about the nature and quality of their products. Defendant manufactures, labels, markets, and sells the Products with prominent labels stating "NO ARTIFICIAL FLAVORS OR PRESERVATIVES," "NO ARTIFICIAL COLORS, FLAVORS OR PRESERVATIVES," and "**No** Artificial Flavors or Preservatives" (capitalization and emphasis in originals). The purpose of such misrepresentations is to induce health-conscious consumers to

purchase foods that are free from artificial chemical preservatives. In reality, the Products contain citric acid, a known artificial chemical preservative, rendering the labeling false, deceptive, misleading, and fraudulent.

4. When companies falsely imply that certain ingredients are natural or derived from natural sources, they violate fundamental consumer protection laws. Such conduct erodes consumer trust, distorts fair competition, and grants deceptive actors an improper advantage in the marketplace.

5. Defendant has profited unjustly from its deceptive conduct. As such, Plaintiff asserts claims on behalf of himself and similarly situated purchasers, both nationwide and in New York, for violations of New York General Business Law Sections 349 and 350, breach of express warranty, and unjust enrichment.

JURISDICTION AND VENUE

6. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. § 1332(d)(2)(a) because this case is a class action where the aggregate claims of all members of the proposed class are in excess of $5,000,000 exclusive of interest and costs, there are over 100 members of the putative class, and at least one class member is a citizen of a state different than Defendant.

7. This Court has personal jurisdiction over Defendant because a substantial portion of the events that gave rise to Plaintiff's claims occurred in New York.

8. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b)(2) because a substantial portion of the events that gave rise to Plaintiff's claims occurred in this District.

PARTIES

9. Plaintiff Edwards is a citizen of New York who resides with his wife and five children in the Bronx, New York. Edwards has purchased a number of Products for his family on multiple occasions including, *inter alia*, Alfredo Sauce Mix, Beef Flavor Gravy Mix, Brown Gravy Mix, Cheddar Broccoli Pasta Side, Buffalo Chicken Flavor Pasta Side, Spanish Rice Side, Chicken Fried Rice Side, Cheddar Broccoli Rice Side, Cheesy Cheddar Pasta Side, and Family Size Cheddar Broccoli Pasta Side over the past three years from merchants including ShopFair Supermarket, Shop Rite, Target, Costco, and BJs. He most recently purchased the Chicken Fried Rice Side on June 12, 2026.

10. Plaintiff Edwards is attentive to the ingredients in the foods that he purchases for himself and his family and avoids foods with artificial preservatives. Each time Edwards purchased a Product, he relied on Defendant's false, misleading, and deceptive marketing stating that it contained "NO ARTIFICIAL FLAVORS OR PRESERVATIVES," "NO ARTIFICIAL COLORS, FLAVORS OR PRESERVATIVES," and "**No** Artifical Flavors or Preservatives." Edwards read and understood these statements to mean that there were no artificial preservatives in the Products. He became aware that Defendant used artificial citric acid as a preservative in the Products in June, 2026. Edwards desires to continue purchasing additional items from Defendant in the future if they are truthfully labeled and do not contain artificial preservatives. However, Edwards is unable to rely on Defendant's "no artificial preservatives" representations because he has no reasonable means to determine from the front label whether the Products contain artificial citric acid or whether Defendant has ceased the challenged practice.

11. Defendant Unilever United States, Inc. is a corporation organized under the laws of Delaware with its principal place of business in Hoboken, New Jersey.

NATURE OF THE CASE

12. Knorr is a legacy food brand whose history dates back to 1838 when Carl Heinrich Knorr opened the first Knorr kitchen in Heilbronn, Germany. Knorr products are now enjoyed by 320 million people worldwide. *See* Knorr, *Our History*, https://www.knorr.com/ie/about-us/our-history.html (last visited Aug. 10, 2026).

13. In 1998, Knorr's parent company, CPC International, renamed its consumer food brand business as Bestfoods.

14. Unilever PLC acquired Bestfoods, and therefore the Knorr brand in 2000. *Unilever Buys Bestfoods*, UPI Archives, June 6, 2000, https://www.upi.com/Archives/2000/06/06/Unilever-buys-Bestfoods/9516960264000/. Defendant Unilever controls the formulation, marketing, labeling, manufacture, and sale of Knorr-branded Products in the United States.

15. Defendant produces, markets, and sells the Products through multiple distribution channels, including nationwide retail locations (*e.g.*, Walmart, Target, Kroger, Aldi) and e-commerce platforms (*e.g.*, Amazon.com, Target.com, Instacart).

16. Defendant's parent company reports annual revenues in the tens of billions of dollars, underscoring the breadth of its market presence, resources, and sophistication. *See* Unilever PLC, *Unilever Annual Report and Accounts 2025*, at 11, https://www.unilever.com/files/unilever-annual-report-and-accounts-2025.pdf (reporting revenue (turnover) of €50.5 billion for 2025).

17. Given Defendant's long-standing presence in the food industry and the vast resources it devotes to product development, regulatory compliance, marketing, and labeling, Defendant knew or should have known of the well-established federal and state laws governing the labeling, marketing, and sale of food products. Nevertheless, at all relevant times, Defendant made and continued to make material misrepresentations and omissions concerning the Products.

18. Defendant manufactures, labels, markets, and sells the Products with prominent front-of-package representations stating, among other things, "NO ARTIFICIAL FLAVORS OR PRESERVATIVES," "NO ARTIFICIAL COLORS, FLAVORS OR PRESERVATIVES," and "**No** Artificial Flavors or Preservatives." These claims appear in all-capital letters and/or bolded text on the Products' labeling and are designed to induce reasonable, health-conscious consumers to purchase foods they believe are free from artificial chemical preservatives. In reality, the Products contain citric acid, a chemical compound that functions as a preservative, rendering Defendant's labeling false, deceptive, and misleading, and likely to deceive reasonable consumers.

19. Knorr marketing reinforces the importance of these representations. The global brand site for Knorr products states that "Knorr's ambition [is] to inspire healthier eating" and that "Knorr wants to inspire people through its products, recipes and tips to make healthier eating more enjoyable and accessible." Unilever, *Knorr*, https://www.unilever.com/brands/foods/knorr/ (last visited Aug. 10, 2026).

20. Defendant disseminated the same or substantially similar misrepresentations to all consumers, including Plaintiffs, through uniform labels, packaging, and marketing materials associated with the Products. Plaintiffs and Class members observed these misrepresentations before their purchase and reasonably relied on them when deciding to buy the Products.

21. As a direct and proximate result of Defendant's false and misleading representations, Plaintiffs and Class members paid a price premium. They overpaid for the Products under the belief that Defendant's representations were truthful, accurate, and lawful.

22. Had Plaintiffs known that the Products were falsely and misleadingly marketed, they would not have purchased the Products or would have paid significantly less for them.

FACTUAL ALLEGATIONS

A. Defendant Represents That the Products Are Free of Artificial Preservatives.

23. Plaintiffs re-allege and incorporate by reference all preceding paragraphs of this Complaint as though fully set forth herein, and further allege as follows:

24. At all relevant times, including as of the filing of this Complaint, Defendant made material misrepresentations regarding the Products.

25. Defendant advertises each of the Products as free of artificial preservatives.

26. Defendant's Professional Products plainly and unambiguously represent that they contain no artificial preservatives. For example:



27. As another example, Defendant's Chicken – Pollo Concentrated Flavor Base makes the same misrepresentation:



28. Images of other Professional Products and their respective "no artificial preservatives" misrepresentations are included in Exhibit 1, attached hereto.

29. Defendant's Sides Products also make declarations regarding the absence of preservatives. Such Products prominently present Defendant's "*Promise*" that they contain "**No** Artificial Flavors or Preservatives" (emphasis original). For example:

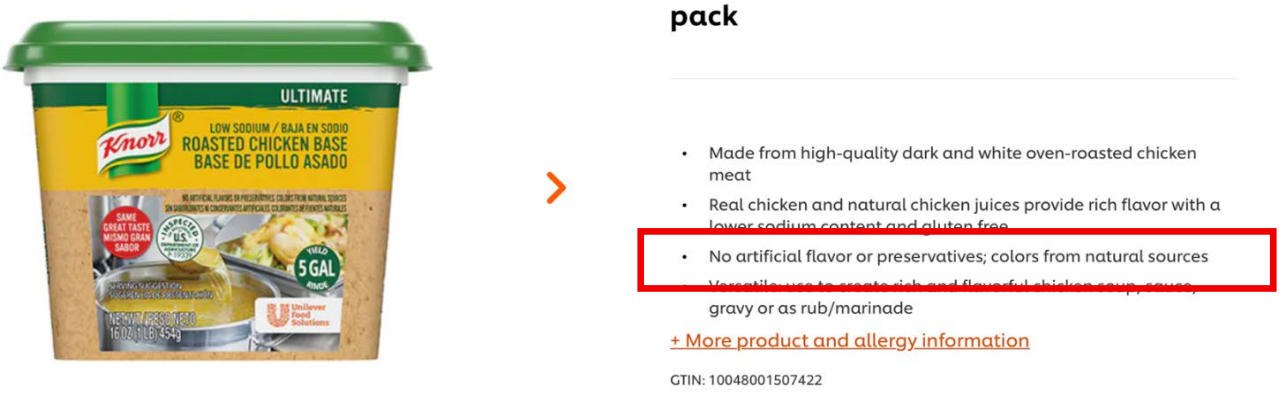


30. Defendant makes the same "*Promise*" with its Pasta Cup Products. For example:

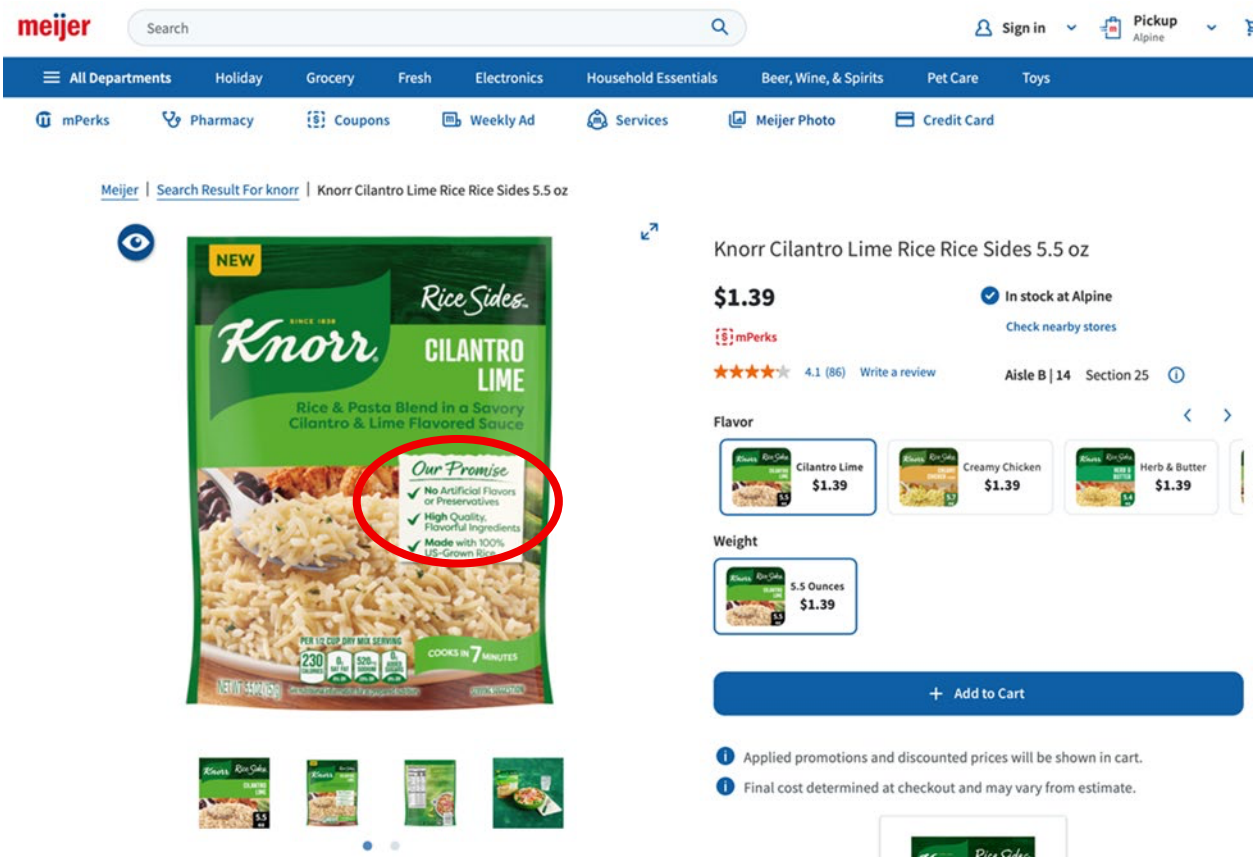


31. Images of other Sides and Pasta Cup Products and their respective "promises" of "no artificial preservatives" are included in Exhibit 1.

32. The "no artificial preservatives misrepresentation" is not just prominent on the Products' packaging; it is also highlighted on Defendant's website. For example:



33. The "no artificial preservatives" misrepresentation also prominently appears on Product pages on third party websites. For example, the below image of Defendant's Cilantro Lime Rice Side Product appears on the website for Meijer grocery stores:



Knorr Cilantro Lime Rice Rice Sides 5.5 oz, Meijer, https://www.meijer.com/shopping/product/knorr-cilantro-lime-rice-rice-sides-5-5-oz/4100000963.html (last visited Aug. 10, 2026).

34. As with many other Products on the Meijer website, the Cilantro Lime Rice Side Product page includes the following FAQ:



Id.

35. The Products' misrepresentations — boldly asserting that the Products contain no artificial preservatives — lead reasonable consumers to believe the Products are indeed free from artificial preservatives. However, each of the Products contains citric acid, a known artificial chemical preservative. For example:

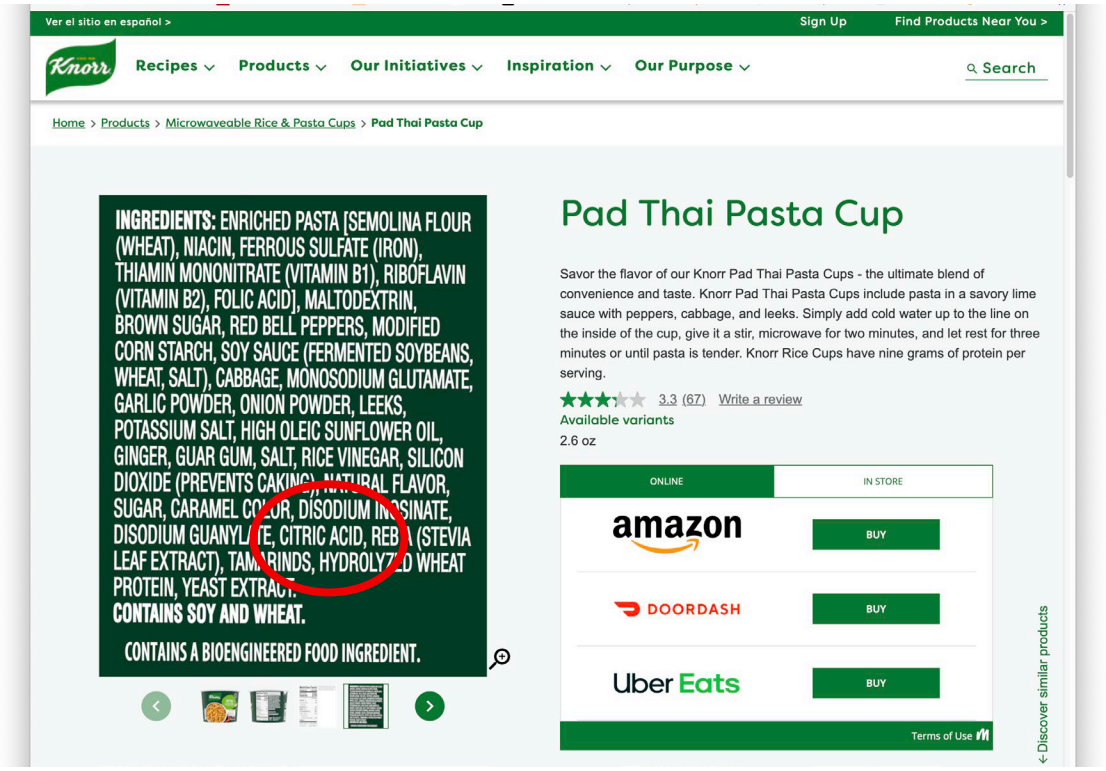
a. Low Sodium Brown Gravy Mix:



b. Family Size Cheddar Broccoli Pasta Side:



c. Pad Thai Pasta Cup:



B. Citric Acid Is a Preservative.

36. Federal regulations define a chemical preservative as "any chemical that, when added to food, tends to prevent or retard deterioration[.]" 21 C.F.R. § 101.22(a)(5) (2025).

37. The FDA classifies food preservatives into two main groups: antioxidants and antimicrobials. *See Types of Food Ingredients*, U.S. Food & Drug Admin. (July 6, 2023), https://www.fda.gov/food/food-additives-and-gras-ingredients-information-consumers/types-food-ingredients (explaining that preservatives "[p]revent food spoilage from bacteria, molds, fungi, or yeast (antimicrobials); slow or prevent changes in color, flavor, or texture and delay rancidity (antioxidants); maintain freshness") (emphasis added).

38. Citric acid has both antioxidant and antimicrobial properties.

39. Citric acid functions as an antioxidant in two primary ways. *See* Kyoung Mi Moon et al., *Recent Trends in Controlling the Enzymatic Browning of Fruit and Vegetable Products*, 25

Molecules (Jun. 15, 2020), https://pmc.ncbi.nlm.nih.gov/articles/PMC7355983/. First, citric acid inhibits enzymes naturally present in food products – such as those that catalyze oxidation and browning when fruit is sliced – by lowering the pH and thereby reducing the enzymes' activity. *Id.* at 1-3 ("Acidifying agents, such as citric acid, ascorbic acid, and glutathione can inactivate [polyphenol oxidases] by lowering the pH."). This inhibition slows oxidative reactions and helps preserve the food.

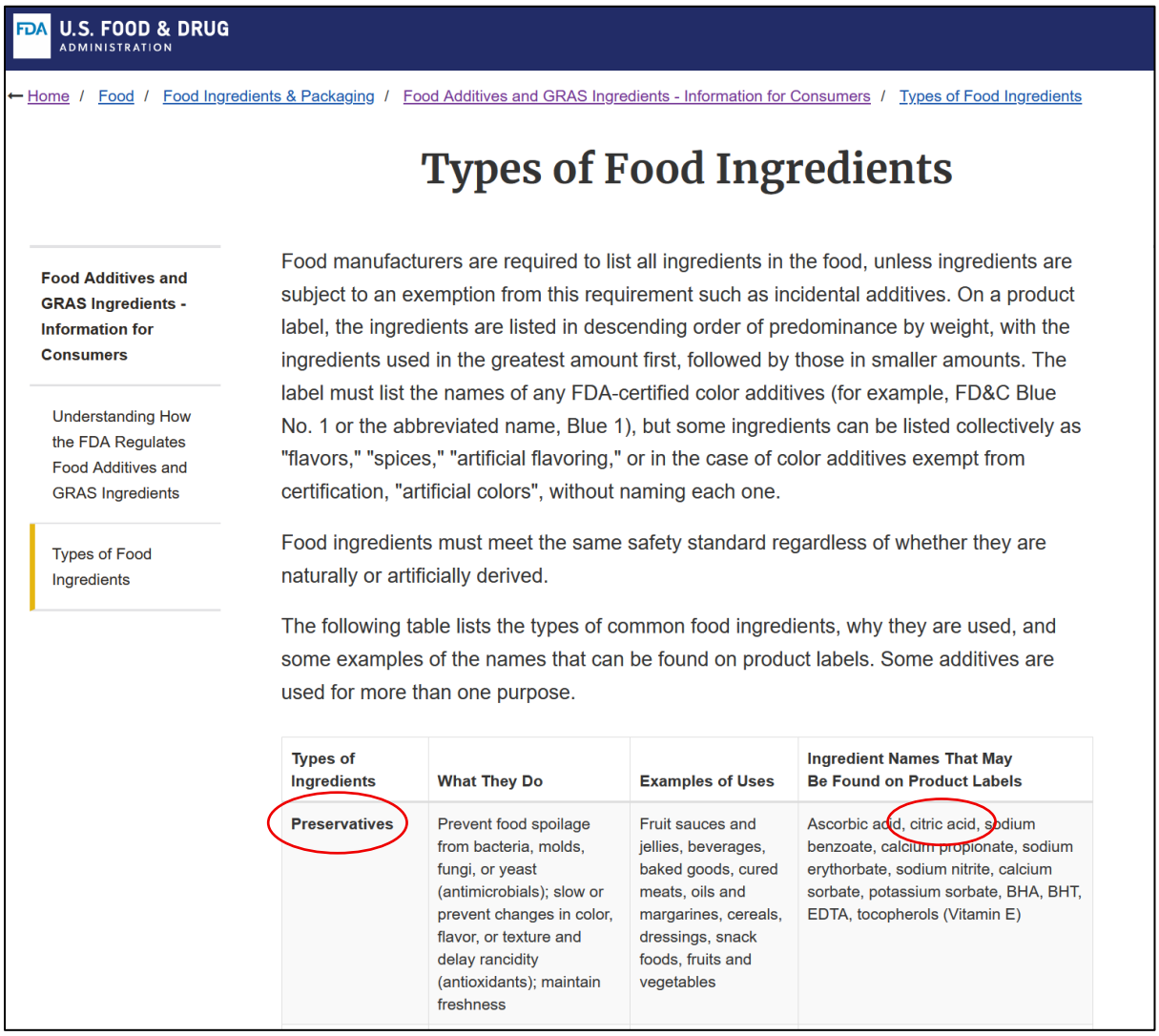
40. Second, citric acid acts as a chelating agent, binding trace metal ions that would otherwise catalyze oxidation, which further stabilizes and preserves food products. *Id.* at 2-3 ("Copper-chelating agents, such as citric and oxalic acids are able to suppress [polyphenol oxidases] activity by binding to metal cofactors in the PPO enzyme structure."); Colin McCarthy & Eric Decker, *Metal Chelators as Antioxidants*, American Oil Chemists' Society (Aug. 10, 2022), https://www.aocs.org/resource/metal-chelators-as-antioxidants/.

41. Citric acid's antimicrobial properties inhibit the growth of certain bacteria, yeasts, and molds. *See* U.S. Food & Drug Admin, *Substances Added to Food: CITRIC ACID* (Apr. 21, 2026), https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=CITRICACID; L. Su et al., *Study on the Antimicrobial Properties of Citrate-Based Biodegradable Polymers*, Frontiers in Bioengineering and Biotechnology, at 1–2 (July 3, 2014), https://doi.org/10.3389/fbioe.2014.00023; Khemmapas Treesuwan et al., *Antimicrobial Mechanism of Salt/Acid Solution on Microorganisms Isolated from Trimmed Young Coconut*, *Microorganisms*, at 2–12 (Mar. 29, 2023) https://www.mdpi.com/2076-2607/11/4/873.

42. For example, as to bacteria, citric acid penetrates the cells and lowers the pH inside, interfering with the cells' normal functions. *See* Su, *supra*, at 1–2. Research has shown citric acid

to be effective against harmful microbes in many foods, such as meat, poultry, fruits, and vegetables. *See* Ewelina Książek, *Citric Acid: Properties, Microbial Production, and Applications in Industries, National Library of Medicine*, at 24 (Dec. 19, 2023) https://pmc.ncbi.nlm.nih.gov/articles/PMC10779990/#:~:text=Citric%20acid%20finds%20broad%20applications,niger%20and%20yeast%20Yarrowia%20lipolytica.

43. For all these reasons, the FDA identifies citric acid as a preservative. On the FDA's consumer guidance page "Types of Food Ingredients," the FDA lists citric acid among common food preservative ingredients.



FDA U.S. FOOD & DRUG ADMINISTRATION

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Types of Food Ingredients

Food Additives and GRAS Ingredients - Information for Consumers

Understanding How the FDA Regulates Food Additives and GRAS Ingredients

Types of Food Ingredients

Food manufacturers are required to list all ingredients in the food, unless ingredients are subject to an exemption from this requirement such as incidental additives. On a product label, the ingredients are listed in descending order of predominance by weight, with the ingredients used in the greatest amount first, followed by those in smaller amounts. The label must list the names of any FDA-certified color additives (for example, FD&C Blue No. 1 or the abbreviated name, Blue 1), but some ingredients can be listed collectively as "flavors," "spices," "artificial flavoring," or in the case of color additives exempt from certification, "artificial colors", without naming each one.

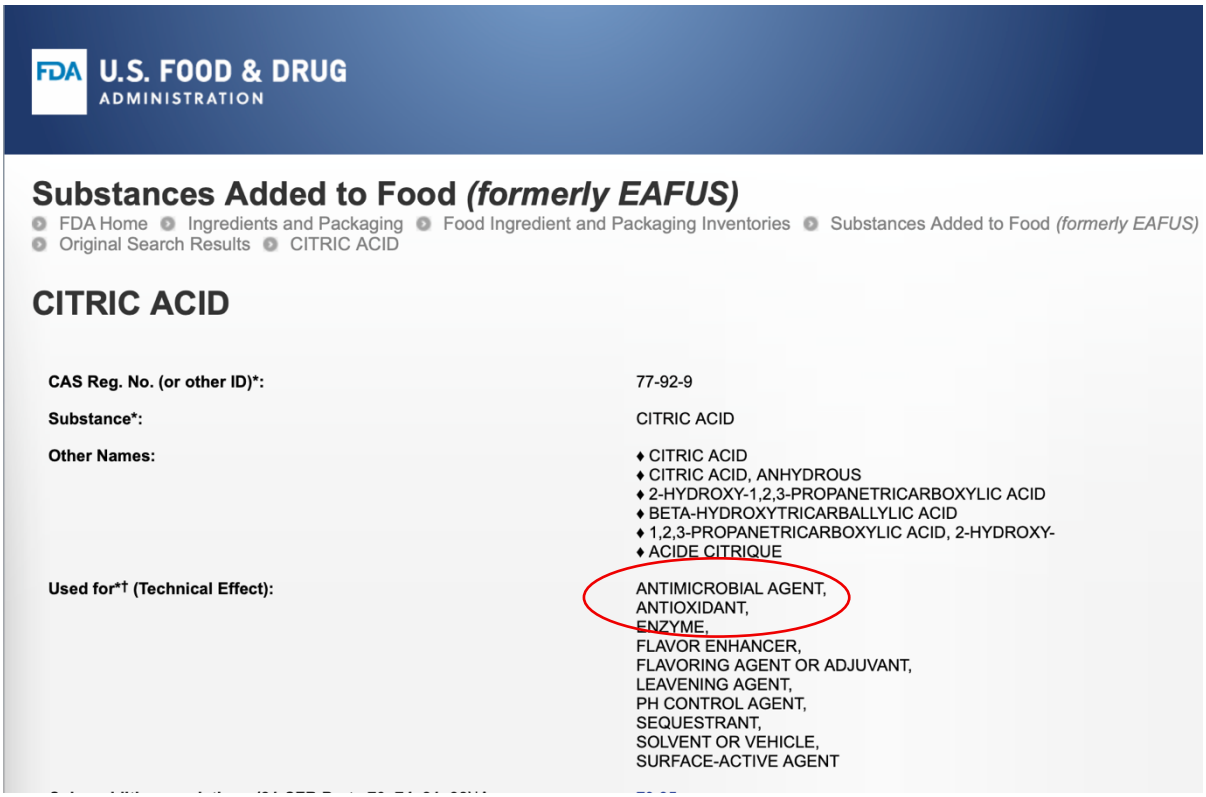
Food ingredients must meet the same safety standard regardless of whether they are naturally or artificially derived.

The following table lists the types of common food ingredients, why they are used, and some examples of the names that can be found on product labels. Some additives are used for more than one purpose.

Types of Ingredients	What They Do	Examples of Uses	Ingredient Names That May Be Found on Product Labels
Preservatives	Prevent food spoilage from bacteria, molds, fungi, or yeast (antimicrobials); slow or prevent changes in color, flavor, or texture and delay rancidity (antioxidants); maintain freshness	Fruit sauces and jellies, beverages, baked goods, cured meats, oils and margarines, cereals, dressings, snack foods, fruits and vegetables	Ascorbic acid, citric acid, sodium benzoate, calcium propionate, sodium erythorbate, sodium nitrite, calcium sorbate, potassium sorbate, BHA, BHT, EDTA, tocopherols (Vitamin E)

Types of Food Ingredients, supra.

44. The FDA's website also includes a page that provides a searchable inventory of "Substances Added to Food." On the page dedicated to citric acid, the FDA describes its uses – both antimicrobial and antioxidant – as a preservative:



U.S. FOOD & DRUG ADMINISTRATION

Substances Added to Food *(formerly EAFUS)*

FDA Home › Ingredients and Packaging › Food Ingredient and Packaging Inventories › Substances Added to Food *(formerly EAFUS)* › Original Search Results › CITRIC ACID

CITRIC ACID

CAS Reg. No. (or other ID)*:	77-92-9
Substance*:	CITRIC ACID
Other Names:	♦ CITRIC ACID ♦ CITRIC ACID, ANHYDROUS ♦ 2-HYDROXY-1,2,3-PROPANETRICARBOXYLIC ACID ♦ BETA-HYDROXYTRICARBALLYLIC ACID ♦ 1,2,3-PROPANETRICARBOXYLIC ACID, 2-HYDROXY- ♦ ACIDE CITRIQUE
Used for*† (Technical Effect):	ANTIMICROBIAL AGENT, ANTIOXIDANT, ENZYME, FLAVOR ENHANCER, FLAVORING AGENT OR ADJUVANT, LEAVENING AGENT, PH CONTROL AGENT, SEQUESTRANT, SOLVENT OR VEHICLE, SURFACE-ACTIVE AGENT

Substances Added to Food, supra.

45. In a document developed jointly by the FDA and the International Food Information Council Foundation, citric acid is identified as a preservative that "[p]revent[s] food spoilage from bacteria, molds, fungi, or yeast (antimicrobials); slow[s] or prevent[s] changes in color, flavor, or texture and delay[s] rancidity (antioxidants); [and] maintain[s] freshness." U.S. Food & Drug Admin. *Food Ingredients & Colors* at 2–3, https://www.fda.gov/files/food/published/Food-Ingredients-and-Colors-%28PDF%29.pdf (last visited Aug. 10, 2026).

46. The FDA has recognized citric acid as a preservative for some time. The FDA's classification of citric acid as a preservative was recognized, for example, in a 2010 Warning Letter sent to Chiquita Brands International, Inc. and Fresh Express, Inc. in which the FDA deemed the "Pineapple Bites" and "Pineapple Bites with Coconut" products "misbranded within the meaning of Section 403(k) of the [Federal Food and Drug Cosmetic] Act [21 U.S.C. 343(k)] in that they contain the chemical preservatives ascorbic acid and citric acid but their labels fail to declare these preservatives with a description of their functions." U.S. Food & Drug Admin., *Warning Letter to Chiquita Brands Int'l, Inc. and Fresh Express, Inc.* (Oct. 6, 2010), *archived at* https://web.archive.org/web/20101109083452/http://www.fda.gov/ICECI/EnforcementActions/WarningLetters/ucm228663.htm (emphasis added).

47. Food scientists likewise agree that the antioxidant and antimicrobial properties of citric acid make it a preservative. *See, e.g.*, Moon et al., *supra,* at 6; Ambreen Latif et al., *An Overview of Key Industrial Product Citric Acid Production by Aspergillus niger and Its Application*, J. Indus. Microbiology & Biotechnology, at 12 (Mar. 28, 2025) https://pmc.ncbi.nlm.nih.gov/articles/PMC11956825/.

48. As the images above show, each Product contains citric acid. Therefore, all of the Products contain a preservative. The federal regulatory definition, the FDA's own classification and enforcement practice, and the food science literature are uniform: citric acid is a chemical that, when added to food, tends to prevent or retard deterioration, and is therefore a preservative.

49. Because citric acid functions as a preservative in food generally, it therefore acts and functions as a preservative in the Products.

C. The Subjective Intent of the Use of Citric Acid Is Immaterial.

50. Citric acid has multiple inherent functions in food and beverages – preservative, acidulant, flavoring, and pH regulator. *See What is Citric Acid and How is it Used?*, Ingredi (Dec.

11, 2018), https://ingredi.com/blog/what-is-citric-acid-and-how-is-it-used-/?srsltid=AfmBOoonnC71j707-z6zMvgON8UHGqzI-LHke3cXR8twddMoyZXhpI7b (describing the multiple roles of citric acid in the food and beverage industry); *Substances Added to Food, supra* (identifying citric acid's uses as including uses as an "antimicrobial agent, antioxidant, enzyme, flavor enhancer, flavoring agent or adjuvant, leavening agent, pH control agent, sequestrant, solvent or vehicle, [and] surface-active agent").

51. Regardless of the intended purpose or the purpose for which Defendant added citric acid to the Products, including as a flavoring agent, citric acid is still a preservative in the Products and functions as a preservative in the Products. *See* U.S. Dept. of Agriculture, *Technical Evaluation Report: Citric Acid and Salts,* at 19–21 (Feb. 17, 2015), https://www.ams.usda.gov/sites/default/files/media/Citric%20Acid%20TR%202015.pdf ("USDA Technical Evaluation Report") (explaining that citric acid's chemistry as an organic acid gives it inherent preservative properties); Zia Sherrell, *What is Citric Acid, and What is it Used for?*, Medical News Today, (Jun. 26, 2023), https://www.medicalnewstoday.com/articles/citric-acid ("In addition to providing flavor, [citric acid] also acts as a preservative."); Książek, *supra*, at 19–21.

52. Consumers understand the term "preservative" to mean an additive that has the ability to preserve food. Merriam-Webster's Dictionary, for example, defines "preservative" as "something that preserves or has the power of preserving." Preservative, Merriam-Webster Dictionary, https://www.merriam-webster.com/dictionary/preservative (last visited Aug. 10, 2026).

53. As stated above, federal regulations define a chemical preservative as "any chemical that, when added to food, tends to prevent or retard deterioration[.]" 21 C.F.R.

§ 101.22(a)(5) (2025); *see* USDA Technical Evaluation Report, *supra*, at 19–20 (describing in the context of 21 CFR 101.22(a)(5) citric acid's preservative mechanisms).

54. Even if the citric acid in the Products does not in practice primarily function as a preservative, it nonetheless qualifies as one because it tends to and has the inherent capacity or tendency to preserve food. *See* USDA Technical Evaluation Report, *supra*, at 19–21; Sherrell, *supra*; Książek, *supra*, at 19–21.

55. Because the citric acid in the Products both functions as a preservative and has the capacity or power to preserve, the citric acid in the Products is a preservative. *See Kelly v. Beliv LLC*, 640 F. Supp. 3d 286, 296–97 (S.D.N.Y. 2022) (holding based on similar allegations that the term "preservative" may have two possible meanings: "an ingredient that actually functions to preserve a specific product" or "an ingredient that has the power or the tendency to preserve, regardless of whether it has a preserving function in a specific product.").

D. The "Natural" – "Artificial" Distinction Is a Matter That Turns on How an Ingredient is Made.

56. Under its ordinary meaning, "artificial" is defined in opposition to "natural": it means "made, produced, or done by humans especially to seem like something natural: man-made." *Artificial*, Merriam-Webster Dictionary, https://www.merriam-webster.com/dictionary/artificial (last visited Aug. 10, 2026) Naturalness and artificiality are therefore not a binary switch but opposite ends of a continuum: the more an ingredient is the product of human manufacture, the further it sits from natural and the closer it sits to artificial, or man-made. What determines where an ingredient falls on that continuum is the process by which it is made, not merely the identity of the resulting molecule. That naturalness is a matter of degree, however, does not make every ingredient a close question. A continuum has two ends: a whole

food taken from nature sits at the natural pole, and a substance produced entirely through industrial manufacture sits at the artificial, man-made pole.

57. Peer-reviewed research confirms that reasonable consumers perceive naturalness in exactly this way – as a matter of degree driven by process rather than content. In a foundational study published in Psychological Science, participants rated the naturalness of foods on a scale from 0 (completely unnatural) to 100 (completely natural), before and after the foods were subjected to operations such as boiling, the addition of trace substances, and genetic modification. *See* Paul Rozin, *The Meaning of "Natural": Process More Important Than Content*, 16 Psychol. Sci. 652 (2005). The study's central conclusion was that process matters more than content in determining perceived naturalness. *Id*. at 657. Its "completely unnatural" pole was anchored by a manufactured, man-made object – a plastic toy pistol – confirming that the unnatural and the artificial occupy the same end of the continuum. *See id*. at 654. The study also identified the operations that drive a food furthest toward that unnatural, man-made pole. Chemical transformation drove perceived naturalness down – and perceived artificiality up – far more sharply than physical change alone; introducing even a trace amount of an unnatural substance sharply reduced perceived naturalness, and did so in a manner largely insensitive to dose, consistent with what the researcher termed "contagion"; and genetic modification of the producing organism produced the single largest shift toward the artificial pole of any operation the study tested. *Id*. at 655–57. Each of these is a form of human industrial intervention, and each, the research shows, strips a food or ingredient of its perceived naturalness, rendering it, from the consumer's perspective, artificial.

58. That an industrially produced chemical is molecularly identical to a substance found in nature does not restore its naturalness or defeat the perception of artificiality. Rozin found

that consumers' preference for a natural product over its commercial counterpart persists "even when we specify that the natural and commercial products are chemically identical." *Id*. at 652. That conclusion rests on direct experimental data: even when a natural product and an industrially synthesized one were stipulated to be chemically identical – and thus indistinguishable in taste, healthfulness, and effect – a majority of respondents still preferred the natural version – a preference that could rest on nothing but the products' different origins. *See* Paul Rozin et al., *Preference for Natural: Instrumental and Ideational/Moral Motivations, and the Contrast Between Foods and Medicines*, 43 Appetite 147 (2004) (framing the choice as one between "natural and artificial exemplars"). A later study replicated the result in a setting closely analogous to the Products: offered a vitamin C described as extracted from natural plants such as lemon versus a chemically identical vitamin C synthesized in a laboratory, roughly three-quarters of participants preferred the natural version, and the study found that consumers generally did not accept that the natural and manufactured alternatives were truly equivalent, tending to attribute greater risk to the manufactured one. *See* Meng Li & Gretchen B. Chapman, *Why Do People Like Natural? Instrumental and Ideational Bases for the Naturalness Preference*, 42 J. Applied Soc. Psychol. 2859 (2012). A stipulation of chemical identity thus does not cause reasonable consumers to treat a manufactured ingredient as the equivalent of its natural counterpart; they continue to perceive, and to care about, the difference.

59. This is the consensus of the consumer-science literature, not an isolated result. A systematic review synthesizing 72 studies conducted in 32 countries and involving more than 85,000 consumers found that food naturalness is crucial to the majority of consumers – a result that held across countries and over time – and that one of the three core categories by which consumers judge a food's naturalness is how it has been produced and processed: the technology

and ingredients used to make it. *See* Sergio Román et al., *The Importance of Food Naturalness for Consumers: Results of a Systematic Review*, 67 Trends Food Sci. & Tech. 44, 46–50 (2017) ("The products should be as minimally processed as possible, even resembling homemade foods.").

60. It follows that an ingredient is not rendered "natural," and does not escape the label "artificial," merely because a chemically identical molecule can also be found in a plant or fruit. Where an ingredient is the product of human industrial manufacture – and the more manufacturing operations applied to it – it is artificial within the ordinary meaning of the word Defendant placed on the Products. An ingredient produced through a combination of such operations does not fall at some ambiguous midpoint of the scale; it sits at the far artificial end. As set forth below, the citric acid in the Products was never a natural substance at all: it is manufactured from the start through precisely the kinds of industrial operations the research associates with the artificial, rather than the natural, end of the scale.

E. The Products' Citric Acid Is Artificial and Chemically Processed.

61. Citric acid can occur naturally when obtained directly from citrus fruits. But that is not the case with the citric acid used in the Products.

62. More than 90% of all citric acid produced for commercial use – including that in the Products – is artificially produced using fermentation. Pau Loke Show et al., *Overview of Citric Acid Production from* Aspergillus niger, 8 Frontiers in Life Science, at 276 (Apr. 20, 2015), https://www.tandfonline.com/doi/full/10.1080/21553769.2015.1033653#d1e252. And approximately 99% of that artificially produced citric acid is manufactured using fungus derived from a processed form of black mold, Iliana E. Sweis & Bryan C. Cressey, *Potential Role of the Common Food Additive Manufactured Citric Acid in Eliciting Significant Inflammatory Reactions Contributing to Serious Disease States: A Series of Four Case Reports*, 5 Toxicology Reports, at 808 (Aug. 2018),

https://www.sciencedirect.com/science/article/pii/S2214750018300362?via%3Dihub ("Approximately 99% of the world's production of [manufactured citric acid] is carried out using the fungus *Aspergillus niger* since 1919."); *Chemical Safety Facts: Citric Acid*, American Chemistry Council (Oct. 14, 2022), https://www.chemicalsafetyfacts.org/chemicals/citric-acid/ ("Since the early 1900's, approximately 99 percent of the world's production of manufactured citric acid has been developed from black mold (the *Aspergillus niger* fungus).").

63. While many processes have been studied for the commercial synthesis of citric acid, "*Aspergillus niger* is superior to other microorganisms for the commercial synthesis of citric acid because of its better production yield." Show et al., *supra*, at 272.

64. Starting with the invention of citric acid extraction from lime juice in 1784, commercial citric acid production originally relied on extraction from citrus fruits. *See* Latif et al., *supra*, at 1–3. In 1893, German botanist Carl Wehmer started work on a sugar fermentation process to manufacture citric acid, but his efforts proved unsuccessful for creating citric acid at an industrial scale. *Id*. A study conducted by James Currie in 1916 led to the successful use of *A. niger* for the economic industrial production of citric acid. Show et al., *supra*, at 271. *A. niger* has since become the primary organism used for industrial citric acid synthesis. *See* Latif et al., *supra*, at 1-3; Ryan AS. et al., *Citric Acid Production by Aspergillus Niger through Submerged and Solid-State Fermentation: An Overview*, 9 Int'l J. Biochemistry & Physiology, at 1–2 (Feb. 13, 2024) https://medwinpublishers.com/IJBP/citric-acid-production-by-aspergillus-niger-through-submerged-and-solid-state-fermentation-an-overview.pdf; Show et al., *supra*, at 271–72; USDA Technical Evaluation Report, *supra*, at 7–9.

65. The primary motivation for replacing citrus extraction with microbial fermentation, and the basis for fermentation's continuing dominance today, was economic: fermentation enabled

far greater production scale, higher yields, greater production stability, no dependence on citrus fruit crop yields or availability, year-round production without seasonal variations, geographic independence, lower energy consumption, less required technical expertise, and the use of inexpensive carbohydrate feedstocks such as molasses and starch derivatives, making citric acid manufacture through fermentation more cost-effective and able to satisfy global demand than labor-intensive extraction from fruit. *See* Latif, *supra*, at 1–3; s*ee also* S. Khurshid et al., *Enhanced Citric Acid Production through Aspergillus niger: Insights from Fermentation Studies Using Sugarcane Molasses*, 14 Life, at 1–2 (June 13, 2024) https://www.mdpi.com/2075-1729/14/6/756; Show et al., *supra*, at 271–72.

66. By contrast, the amount of citric acid available in citrus fruit is relatively low. *See* Książek, *supra*, at 2 (stating that, by dry weight, citric acid is found in small quantities in citrus fruit: "lemons (4–8%), blackberries (1.5–3.0%), grapefruits (1.2–2.1%), as well as oranges, raspberries, and strawberries in the range of 0.6–1.3%"). Thus, large quantities of lemons or even higher quantities of other fruit are required for a single kilogram of citric acid. The high demand for citric acid far exceeds the supply of citric acid-bearing fruit. *See* Latif et al., *supra*, at 2.

67. The dominant industrial fermentation method for manufacturing citric acid is submerged fermentation, which accounts for approximately 80% of global citric acid production. *See* Książek, *supra*, at 1, 10; Latif et al., *supra*, at 4; Ryan et al., *supra*, at 2. The remaining global production uses surface fermentation (approximately 20%) and solid-state fermentation, which is "only marginally used in industrial citric acid production;" both likewise produce citric acid through industrial cultivation of *A. niger* on liquid or moist solid media. *See* Latif et al., *supra*, at 3–5; Książek, *supra*, at 11–12. In the dominant submerged-fermentation process, the mold is cultivated at large scale inside closed, corrosion-resistant stainless-steel fermentation tanks

(bioreactors) equipped with aeration and mixing systems. *See* Książek, *supra*, at 12. These bioreactors are inoculated with industrially developed mutant strains of *A. niger* and fed sterilized liquid media containing carbohydrate sources such as glucose, sucrose, corn-derived syrups, or cane and beet molasses, along with carefully calibrated nitrogen, phosphate, and trace metal nutrients required to drive the fungus toward citric acid overproduction rather than ordinary growth. *See* USDA Technical Evaluation Report, *supra*, at 10–11; Latif et al., *supra*, at 4, 8–9; Ryan, supra, at 2–4; Show et al., *supra*, 277–79. Throughout the run, operators tightly control temperature (typically 25–30°C), dissolved oxygen, and pH – initially holding the broth near neutral to permit spore germination, then deliberately driving it below pH 2 to suppress side products such as oxalic and gluconic acid and to push the fungus into its citric-acid-secreting phase. *See* Latif, *supra*, at 8–9; Show et al., *supra*, 277–79; USDA Technical Evaluation Report, *supra*, at 9–11; Książek, *supra*, at 12–19. As it metabolizes the sugars under these engineered conditions, *A. niger* secretes citric acid into the surrounding liquid, which, at the end of the fermentation cycle, is drained from the tank, separated from the fungal biomass (mycelium), and then purified through filtration, precipitation, and crystallization for use in foods and consumer products. *See* USDA Technical Evaluation Report, *supra*, at 11–17; Show et al., *supra*, at 279–80; Latif et al., *supra*, at 19. From start to finish, the process bears no resemblance to extracting juice from a lemon: it is a tightly controlled chemical-industrial operation conducted inside steel reactors and chemical processing trains designed to maximize yield of a single compound at commercial scale.

68. During filtration, precipitation and crystallization, the citric acid is chemically transformed and then chemically transformed back. First, calcium oxide hydrate (milk of lime) is added to the fermentation broth, converting the citric acid into a different compound – tricalcium citrate tetrahydrate –which precipitates out as a solid. *See* Show et al., *supra*, at 279–80; USDA

Technical Evaluation Report, *supra*, at 12–13. The precipitate is filtered off and then treated with sulfuric acid, which converts it back into citric acid and produces gypsum (calcium sulfate) as a byproduct. Show et al., *supra*, at 280; USDA Technical Evaluation Report, *supra*, at 12–14. The resulting solution is then filtered through activated carbon, run through ion-exchange columns, evaporated, and crystallized to yield the finished manufactured citric acid. Show et al., *supra*, at 280; USDA Technical Evaluation Report, *supra*, at 12–15. This is not extraction in any ordinary sense. It is a chemical-industrial process in which citric acid is turned into one substance using one chemical and then turned back into citric acid using another. It is also a process that consumes a large quantity of chemicals and produces a significant amount of industrial waste. *See* USDA Technical Evaluation Report, at 14 (describing that for a single ton of citric acid "579 kg of calcium hydroxide, 765 kg of sulfuric acid and 18 m3 of water are consumed and approximately one metric ton of gypsum is produced"); Latif et al., *supra*, at 10 (explaining how the classical method of citric acid recovery produces "massive quant[ities] of gypsum and wastewater").

69. Manufactured citric acid contains residues that natural citric acid does not. *See* 21 C.F.R. § 173.280; USDA Technical Evaluation Report, *supra* at 6. As explained in the USDA's Technical Evaluation Report, Section 173.280 – the federal regulation governing how citric acid is extracted from *A. niger* fermentation – expressly permits the finished manufactured citric acid to contain trace amounts of three industrial chemicals: an alcohol (n-octyl alcohol), a petroleum-derived solvent (synthetic isoparaffinic petroleum hydrocarbons), and an amine (tridodecyl amine). USDA Technical Evaluation Report, *supra* at 6. Citric acid extracted from citrus fruit contains none of these. The FDA's tolerance for these residues in manufactured citric acid is a confirmation that natural citric acid and manufactured citric acid are not chemically identical.

70. Authorities discussing the commercial manufacture of citric acid explain that the *A. niger* strains used in commercial citric acid production are not from wild sources in nature, but the product of decades of "significant genetic modifications" producing "genetically modified mutant variants of this mold." Sweis & Cressey, *supra*, at 810; *see also* Książek, *supra*, at 5–6; Ryan et al., *supra*, at 3–4. The fungus that produces manufactured citric acid is itself an industrial artifact – another respect in which manufactured citric acid cannot be equated with citric acid extracted from citrus fruit or otherwise regarded as natural.

71. Unlike naturally occurring citric acid, manufactured citric acid ("MCA"), even though categorized as "generally recognized as safe" ("GRAS") has been reported to cause health problems. Dr. Iliana Sweis, for example, provided the following assessment of her findings in a peer-reviewed and widely cited report:

> *Aspergilus [sic] niger* is a known allergen. The FDA placed MCA under the category of GRAS without any research to substantiate this claim. In 2016, 2.3 million tons of MCA were produced, predominantly in China, and approximately 70% is used as a food or beverage additive. There have been no scientific studies performed to evaluate the safety of MCA when ingested in substantial amounts and with chronic exposure. We present four case reports of patients with a history of significant and repetitive inflammatory reactions including respiratory symptoms, joint pain, irritable bowel symptoms, muscular pain and enervation following ingestion of foods, beverages or vitamins containing MCA. We believe that ingestion of the MCA may lead to a harmful inflammatory cascade which manifests differently in different individuals based on their genetic predisposition and susceptibility, and that the use of MCA as an additive in consumable products warrants further studies to document its safety.

Sweis & Cressey, *supra*, at 808 (emphasis added); *see also* Sherrell, *supra*. (stating that MCA "can contain remnants of black mold . . . [, which] can trigger allergies or unwanted effects when consumed").

72. As stated above, more than 90% of citric acid in food is artificially manufactured. Given this fact, it is not just "plausible" that the Products contain chemically produced citric acid – it is almost certain.

73. The manufacturing process described above is hardly natural; to the contrary, it combines several of the very operations that research has identified as driving a substance away from natural and toward the artificial, man-made end of the scale. *See* Rozin, *supra*. First, the citric acid in the Products is not gathered from fruit but built through industrial submerged fermentation in steel bioreactors – a human production process of exactly the kind the research found governs naturalness more than molecular content does. *See id.* at 657. Second, recovering citric acid from the fermentation broth requires chemical transformation involving successive conversion to and from calcium citrate using lime and sulfuric acid. Chemical changes were found to reduce perceived naturalness substantially more than physical ones. *See id.* at 656. Third, the manufactured product carries trace industrial residues not present in citric acid obtained from fruit, the introduction of which mirrors the "contagion" effect, by which even minute amounts of an unnatural substance sharply and dose-insensitively reduce naturalness. *See id.* at 655–57. Fourth, the citric acid in the Products is produced using genetically modified strains of *A. niger*, and genetic modification of the producing organism was the single operation that reduced perceived naturalness the most. *See id.* at 655–56. These features are neither marginal nor offsetting. The citric acid in the Products is the product of all of them at once: it is synthesized by an industrially engineered organism, chemically converted into a different compound and back, and left bearing industrial residues that citric acid extracted from fruit never contains. Each of these operations independently marks the Products' citric acid as artificial; together, they place it at the far artificial extreme of the scale. This is not a close or marginal case: whatever gradations lie along the continuum between natural and artificial, the Products' citric acid sits unmistakably at its artificial pole – so far from the natural end that no reasonable consumer would regard it as even slightly natural.

74. The FDA's own enforcement is to the same effect, treating an "all natural" representation on a product that contains citric acid as inappropriate. In an August 16, 2001, warning letter, the FDA's New York District Office advised Oak Tree Farm Dairy, Inc. that the "100% NATURAL" and "ALL NATURAL" claims on its "Oaktree Real Brewed Iced Tea" were inappropriate "because it contains citric acid." U.S. Food & Drug Admin., *Warning Letter to Oak Tree Farm Dairy, Inc.* (Aug. 16, 2001), archived at (https://web.archive.org/web/20110314032634/http://www.fda.gov/ICECI/EnforcementActions/WarningLetters/2001/ucm178712.htm). In doing so, the FDA applied its policy that "natural" means "nothing artificial or synthetic has been included in, or has been added to, a food that would not normally be expected to be in the food. " *Id.* (citing 58 Fed. Reg. 2407 (Jan. 6, 1993)). The FDA's Cincinnati District Office reached the same result, advising Hirzel Canning Company that, although its Dei Fratelli "Chopped Tomatoes Onions & Garlic" and "Chopped Mexican Tomatoes & Jalapenos" bore the term "All Natural," the addition of citric acid (along with calcium chloride) "preclude[d] use of the term 'natural' to describe" the products. U.S. Food & Drug Admin., *Warning Letter to Hirzel Canning Co.* (Aug. 29, 2001) archived at (https://web.archive.org/web/20100308142250/http://www.fda.gov/ICECI/EnforcementActions/WarningLetters/2001/ucm178343.htm). In each instance, the FDA confronted an "all natural" representation on a product containing citric acid and found the representation inappropriate.

F. The Products Incorporate Multiple Industrially Manufactured Ingredients

75. Defendant represents that the Products contain "no artificial . . . preservatives." The term "artificial" carries its ordinary meaning: "made, produced, or done by humans especially to seem like something natural: man-made." *See* Artificial, Merriam-Webster Dictionary, *supra*; *cf. Goetz v. Ainsworth Pet Nutrition, LLC*, 768 F. Supp. 3d 645, 657 n.6 (S.D.N.Y. 2025) (citing Merriam-Webster for the ordinary meaning of a food-ingredient term). An ingredient is "artificial"

within this ordinary meaning when it is made or produced by humans through industrial manufacturing processes, rather than occurring in nature or derived directly from naturally occurring plant, animal, or mineral sources.

76. "Synthetic" describes a narrower category of artificial ingredients. As defined by federal regulation, a "synthetic" substance is "a substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring plant, animal, or mineral sources, except that such term shall not apply to substances created by naturally occurring biological processes." 7 C.F.R. § 205.2. Every synthetic ingredient is, by definition, artificial. The reverse is not true: an ingredient may be artificial – made or produced by humans through industrial manufacturing processes – without satisfying the regulatory definition of "synthetic." An ingredient produced through industrial fermentation, for example, may fall outside the regulatory definition of "synthetic" because of the carve-out for "substances created by naturally occurring biological processes," even though the resulting ingredient is manufactured through human-engineered industrial operations bearing no resemblance to the natural occurrence of the ingredient in nature. Whether or not the citric acid in the Products satisfies the narrower regulatory definition of "synthetic," it is "artificial" within the ordinary meaning of the term Defendant placed on the label. A substance's classification as nonsynthetic under the organic-certification regulations reflects a carve-out for fermentation, not a determination that the substance is natural, and does not narrow the ordinary meaning of "artificial."

77. As detailed above, the citric acid in the Products is artificial. It is manufactured citric acid produced through the industrial cultivation of genetically modified strains of the black mold *A. niger* in steel bioreactors, followed by chemical precipitation, sulfuric acid treatment,

activated-carbon filtration, ion exchange, and crystallization. That process is not the extraction of citric acid from citrus fruit; it is a human-engineered industrial manufacturing operation. The citric acid in the Products is therefore "artificial" within the ordinary meaning of the very term Defendant placed on the Products' labels.

78. That the citric acid in the Products is manufactured rather than naturally derived is further confirmed by Defendant's systematic incorporation of other industrially manufactured ingredients throughout the Products. A manufacturer that formulates its Products from a roster of industrially produced additives is, in all plausibility, using the industrially manufactured form of citric acid – not citric acid laboriously extracted from citrus fruit. *Cf. Goetz*, 768 F. Supp. 3d at 656 n.3 (finding that a defendant's demonstrated willingness to use manufactured forms of certain ingredients supports the plausible inference that it uses the manufactured form of others, "particularly in light of widespread commercial practice").

79. The National List of Allowed and Prohibited Substances, 7 C.F.R. pt. 205, subpt. G, classifies several of the ingredients in the Products as synthetic. These include silicon dioxide, *id*. § 205.605(b)(29); xanthan gum, *id.* § 205.605(b)(38); mono- and di-glycerides, *id.* § 205.605(b)(16); sodium phosphates, *id*. § 205.605(b)(34); and potassium phosphate, *id*. § 205.605(b)(28). Because they are classified as synthetic, each of these ingredients is, by definition, artificial.

80. Other ingredients in the Products, while not enumerated on the National List as synthetic substances, are likewise artificial because they are made or produced by humans through industrial manufacturing processes and do not occur in nature in the isolated and refined forms used in the Products. These include:

(a) **Maltodextrin**, a manufactured, highly processed additive that does not occur in nature and is produced through an industrial process in which starch (*e.g.*, corn, potato, or rice) is gelatinized by heating in water and then subjected to acid or controlled enzymatic hydrolysis that breaks the starch into shorter glucose chains. The resulting liquid is clarified, concentrated, and dried to produce a refined carbohydrate powder. *See* Milena Lambri et al., *Process Development for Maltodextrins and Glucose Syrup from Cassava*, 38 Chem. Eng. Trans., at 469–70 (June 2014), https://www.researchgate.net/publication/262726710_Process_Development_for_Maltodextrins_and_Glucose_Syrup_from_Cassava; Tam Minh Le & Nhung Thi Tran, *Bio-versus Chemical Approaches to Produce Maltodextrin (de 9–12) for Potential Applications in Functional Foods and Pharmaceuticals*, J. of Tech. Edu. Sci. at 77-82 (Dec. 28, 2023); Farshid Tavakoli, *Maltodextrin Manufacturing Process: Step-by-Step Guide, Challenges and Applications*, Yasmin Trading, https://yasmintrading.com/maltodextrin-manufacturing-process/ (last visited Aug. 10, 2026), *see also* 21 C.F.R. § 184.1444.

(b) **Disodium inosinate** and **disodium guanylate**, manufactured flavor-enhancing additives. These additives are the disodium-salt forms of two nucleotide compounds known as inosinic acid (IMP) and guanylic acid (GMP). Commercial production of these additives occurs through industrial manufacturing processes. In one production method, specially selected or genetically modified microorganisms are grown through fermentation to overproduce purine nucleosides or nucleotide-related compounds, which are then recovered and processed. *See* Rodrigo Ledesma-Amaro et al., *Increased Production of Inosine and Guanosine by Means of Metabolic Engineering of the Purine Pathway in Ashbya gossypii*, 14 Microbial Cell Factories 58, at 1–2 (2015); Jian Wang et al.,

Mutagenetic Study of a Novel Inosine Monophosphate Dehydrogenase from Bacillus amyloliquefaciens and Its Possible Application in Guanosine Production, 28 Biotechnology & Biotechnological Equipment at 102 (2014). In another, nucleic acids obtained from yeast are enzymatically broken down and the desired compounds are isolated and purified. *See* Jieying Deng et al., *Precision Hydrolysis: Tailored Yeast Processing Enzymes for Yeast-Based Products*, 110 Applied Microbiology & Biotechnology art. 5, at 8–9 (2026). Following isolation and purification, the compounds are further processed and recovered as commercial disodium-salt products.

Although inosinic acid and guanylic acid exist naturally within living cells, the disodium inosinate and disodium guanylate used in the Products are not obtained directly from whole foods. Rather, they are highly refined ingredients produced through industrial fermentation or extraction, purification, chemical conversion, and crystallization processes. FDA regulations likewise define disodium inosinate as a manufactured and purified food additive subject to specified identity and purity standards. *See* 21 C.F.R. § 172.535(a); *see also id.* § 172.530 (authorizing disodium guanylate for use as a flavor enhancer). As sold and used in the Products, disodium inosinate and disodium guanylate are therefore industrially manufactured additives, not ingredients present in the same form in nature.

(c) **Caramel color** is not a natural ingredient but a manufactured industrial colorant produced by the controlled, high-temperature reaction of refined carbohydrates in closed industrial vessels. *See* Garima Sengar & Harish Kumar Sharma, *Food Caramels: A Review*, 51 J. Food Sci. & Tech. 1686 (Sept. 2014). Caramel colors are classified by the chemical reactants used to drive that reaction: Class I uses neither ammonium nor sulfite compounds; Class II uses sulfite compounds; Class III uses ammonium compounds; and Class IV uses

both. *See id.* at 1689. As shown in Exhibit 1, certain of the Products, including Brown Gravy Mix and Low Sodium Brown Gravy Mix, disclose "caramel color (sulfites)" on their labels, confirming the use of a sulfite-process caramel (i.e., a Class II or Class IV caramel manufactured with one or more of the sulfite reactants authorized for caramel manufacture under 21 C.F.R. § 73.85(a)(2), such as sodium sulfite or sulfurous acid). Those reactants are synthetic industrial chemicals employed to drive the caramelization reaction, not ingredients drawn from nature.

(d) **Hydrolyzed corn protein** and **hydrolyzed soy protein**, manufactured flavor ingredients produced by breaking down isolated plant protein into smaller peptides and free amino acids. They are produced, regardless of the plant protein source, by one of two industrial methods: acid hydrolysis, in which the plant protein is cooked with acid (often hydrochloric acid) to cleave it into amino acids and peptides; or enzymatic hydrolysis, in which proteases break the protein down into its component amino acids under milder conditions. *See* Margit Dall Aaslyng et al., *Chemical and Sensory Characterization of Hydrolyzed Vegetable Protein, a Savory Flavoring*, 46 J. Agric. Food Chem. 481 (1998); Xiang Dong Sun, *Enzymatic Hydrolysis of Soy Proteins and the Hydrolysates Utilisation*, 46 Int'l J. Food Sci. & Tech. 2447 (2011); Jamie Marchetti, *Hydrolyzed Vegetable Protein – The International Food Flavoring Superstar*, Prospector Knowledge Ctr. (UL Solutions) (June 7, 2023), https://ulprospector.ul.com/14296/fb-hydrolyzed-vegetable-protein/ (last visited Aug. 10, 2026). Although corn and soy are themselves foods, the hydrolyzed corn protein and hydrolyzed soy protein used in the Products are not those whole foods. They are refined industrial ingredients produced by the chemical or enzymatic breakdown of isolated plant protein, followed by neutralization, filtration, concentration, and drying.

FDA regulations classify these ingredients as protein hydrolysates and require that each be named for its specific protein source. *See* 21 C.F.R. § 102.22. As used in the Products, hydrolyzed corn protein and hydrolyzed soy protein are therefore industrially manufactured flavor ingredients, not ingredients present in the same form in nature.

None of these ingredients is present in nature in the isolated and refined form used in the Products; each is the product of industrial manufacture.

81. Defendant's systematic incorporation of these industrially manufactured ingredients – both those classified as synthetic by federal regulation and those otherwise produced through industrial manufacturing processes – confirms the manufactured, artificial character of the Products' formulations and supports the plausible inference that the citric acid in the Products is likewise the industrially manufactured form produced through *A. niger* fermentation, rather than citric acid derived from citrus fruit. These ingredients are not themselves the preservative at issue; their presence is circumstantial evidence confirming the manufactured, artificial character of the citric acid that Defendant represents to be absent. The specific industrially manufactured ingredients contained in each Product, including those identified above, are set forth in the ingredient lists attached as Exhibit 1.

82. For the reasons set forth above, a reasonable consumer encountering Defendant's "no artificial preservatives" representations would understand them to exclude an industrially manufactured ingredient such as the citric acid in the Products, and would not understand those representations to be satisfied by an ingredient built through industrial fermentation and chemical processing merely because a chemically identical molecule occurs in citrus fruit. Reasonable consumers perceive and rely on the distinction between naturally derived and industrially manufactured ingredients. *See supra* ¶¶ 56–60. Nor is this an ingredient whose classification could

reasonably be disputed. The Products' citric acid does not lie near the middle of the natural–artificial continuum; as set forth above, it sits at the continuum's far artificial end – manufactured in its entirety through industrial operations – and no reasonable consumer would regard it as even slightly natural. *See supra* ¶ 73. That conclusion does not depend on the two forms of citric acid being chemically distinct; though, as alleged above, they are not identical. Even if the citric acid in the Products were assumed to be chemically identical to citric acid found in fruit, reasonable consumers would still be misled, because both the ordinary meaning of "artificial" and the settled understanding of reasonable consumers turn on the process by which an ingredient is made, not on its molecular composition. Defendant's "no artificial" representations are accordingly false and misleading and are likely to deceive a substantial portion of reasonable consumers acting reasonably under the circumstances.

G. Defendant's Misrepresentation Exploits Consumers' Demand for Preservative-Free Food.

83. Defendant's misrepresentation that the Products are free of artificial preservatives is designed to exploit long-standing and well-documented consumer preferences for foods marketed as healthier and "free from" artificial preservatives.

84. Consumers place significant weight on such labeling, with surveys and industry studies consistently showing that preservative-free claims drive purchasing decisions because shoppers view these products as safer and more natural. Even industry-funded research, such as that conducted by the International Food Information Council, confirms that consumers are

skeptical of foods containing preservatives. Accordingly, representations that a product contains "no artificial preservatives" are material and deliberately targeted to influence consumer behavior.

85. Consumer research from 2015, for example, demonstrates that health-related labeling – especially "free-from" claims – has shaped purchasing behavior and perceptions of product healthfulness:

> Foods bearing "free-from" claims are increasingly relevant to Americans, as they perceive the products as closely tied to health. New research from Mintel reveals that 84 percent of American free-from consumers buy free-from foods because they are seeking out more natural or less processed foods. In fact, 43 percent of consumers agree that free-from foods are healthier than foods without a free-from claim, while another three in five believe the fewer ingredients a product has, the healthier it is (59 percent). Among the top claims free-from consumers deem most important are trans-fat-free (78 percent) and preservative-free (71 percent).

84% of Americans Buy "Free-From" Foods Because They Believe Them to be More Natural or Less Processed, Mintel (Sept. 3, 2015), https://www.mintel.com/press-centre/84-of-americans-buy-free-from-foods-because-they-believe-them-to-be-more-natural-or-less-processed/ (emphasis added).

86. A 2018 joint study by the Food Marketing Institute, an advocacy group for the food retail industry, and Label Insight, a food industry consumer intelligence company, found that "no preservatives" was the leading product packaging description that influenced consumer purchasing decisions:

Packaging Descriptions That Impact Purchases

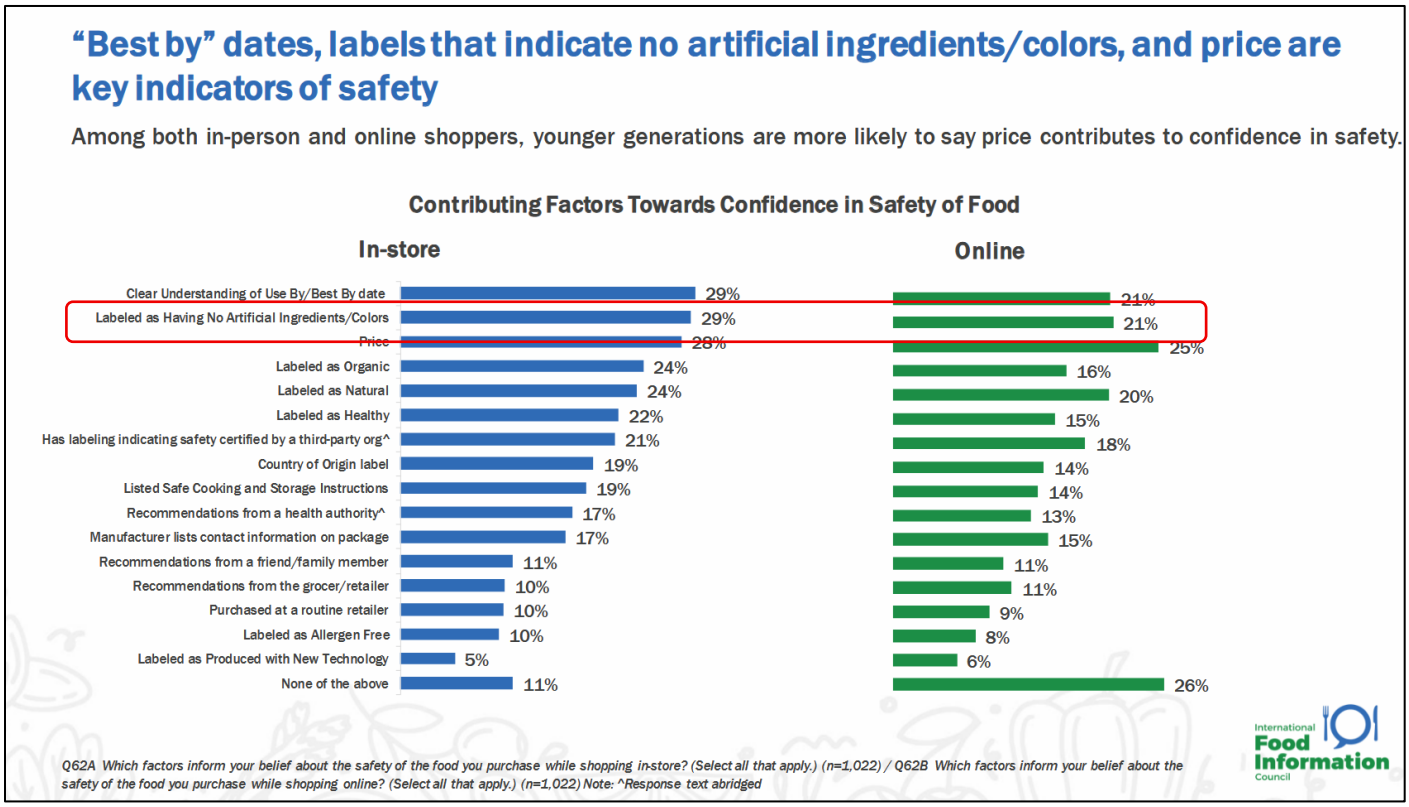
Shoppers were asked what descriptions that appear on product packaging influence their purchase decisions. As outlined below, there are many descriptions that shoppers claim to impact their purchase behavior.

TOP TIER		MID TIER		BOTTOM TIER	
No preservatives	42%	Organic/Certified organic	27%	No allergens	19%
High protein	39%	Low carbs	27%	Delicious taste/Experience	18%
No added hormones	39%	No/Low fat	26$	Gluten-free	18%
Low sugar	38%	Vitamin-enriched	25%	Pasture-raised	17%
Low sodium	38%	Cage-free	24%	Certified Humane	16%
Free from artificial flavors	37%	Local	24%	Fair Trade	15%
Whole grains	35%	Grass-fed	24%	Calcium-fortified	14%
No trans fats	34%	Free-range	23%	Sustainable	14%
Non-GMO	34%	No HFCS (high fructose corn syrup)	23%	Clean label	12%
Free from artificial colors	34%	Reduces risk of heart disease/ Heart healthy	23%	Contains dairy	12%
High fiber	34%	Low/Lowers cholesterol	22%	Contains nuts	11%
Antibiotic-free	33%	Antioxidant-rich	21%	New and improved	10%
Natural	31%			Kosher	9%
Healthy	31%			Vegan	8%
Low calorie	30%			Halal	3%

The Transparency Imperative: Product Labeling from the Consumer Perspective, Food Marketing Institute & Label Insight (2018) at 26, https://packaginginnovationportal.com/wp-content/uploads/2022/01/2018-FMI-LI-Transparency-Imperative-Report.pdf (last visited Aug 10, 2026).

87. A 2019 Wakefield Research study showed that "more than half of shoppers (51%) were also swayed by "*no preservatives*," particularly older generations." Mary Ellen Shoup, *Label Insight Survey Reveals Loosely-Defined Claims Such as 'Natural' Still Have Pull with Consumers*, Food Navigator USA, (Mar. 28, 2019), https://www.foodnavigator-usa.com/Article/2019/03/28/Label-Insight-survey-reveals-loosely-defined-claims-such-as-natural-still-have-pull-with-consumers/.

88. In the 2023 Food and Health Survey conducted by the International Food Information Council, an industry-funded nonprofit that promotes research and messaging aligned with the interests of major food and beverage companies, one of the highest-ranked factors informing consumers about the safety of the food they purchase is a label on the food stating that it contains no artificial ingredients or colors:



2023 Food and Health Survey, International Food Information Council (May 23, 2023) at 73, https://ific.org/wp-content/uploads/2025/04/IFIC-2023-Food-Health-Report.pdf.

89. Further, a separate 2023 study by the International Food Information Council found that most people ranked foods containing preservatives as unhealthy if consumed, or were unsure about their healthfulness. *Public Attitudes Around Food Ingredients*, International Food Information Council (May 2023) at 10–11, https://ific.org/wp-content/uploads/2025/04/2023-Food-Ingredient-Survey.pdf.

90. The trend toward health-driven food choices remains strong in 2025, with industry observers acknowledging that "all natural, no artificial flavors, colors, or preservatives" are no longer passing fads but baseline expectations for consumers. *See* Kelly Beaton, *The Specialty Shift: Health, Premiumization, Value Will Shape 2025*, (Feb. 12, 2025), https://foodinstitute.com/focus/the-specialty-shift-health-premiumization-value-will-shape-2025/.

91. A June 2025 study by PricewaterhouseCoopers ("PwC") on consumer food preferences found, for example, that 25% of consumers were "extremely concerned," 32% were "very concerned," and 32% were "somewhat concerned" about the levels of additives or preservatives in their food. *PwC's Voice of the Consumer 2025: A New Recipe for the Food Industry*, PwC (Jun. 10, 2025), https://www.pwc.com/gx/en/issues/c-suite-insights/voice-of-the-consumer-survey.html.

92. This evidence underscores that Defendant's representations that the Products are free of artificial preservatives are not incidental marketing puffery, but material claims that directly target health-conscious consumers and materially influence purchasing decisions.

93. Empirical evidence shows that consumers are consistently willing to pay a premium for healthier food. A 2022 review of 26 different experiments, for example, found that in 88.5% of experiments, "consumers would pay a 5.6% to 91.5% (mean 30.7%) price premium for healthier foods." *See* Moosa Alsubhi et al., *Consumer Willingness to Pay for Healthier Food Products: A Systematic Review*, National Library of Medicine, (Nov. 7, 2022), https://pmc.ncbi.nlm.nih.gov/articles/PMC10909406/.

94. Industry insiders have also reported similar findings. For example, consumer research by Ingredion, an "ingredient solutions" company, found 74% of survey consumers would

pay more for food that has no artificial ingredients – 24% would pay 5% more, 22% would pay 10% more, 16% would pay 20% more, and 12% would pay 30% or more. *See Maximize Brand Value by Formulating to 2024 Consumer Food Preferences*, Ingredion (2024), https://www.ingredion.com/na/en-us/be-whats-next/2023-consumer-food-preference-trends (last visited Aug. 10, 2026).

95. Plaintiff and the other putative class members suffered harm from Defendant's misleading and deceptive practices in labeling the Products as free of artificial preservatives. Plaintiff and the other putative class members paid more for the Products than they would have if they had known that the Products were made with the chemical preservative citric acid.

CLASS ACTION ALLEGATIONS

96. Plaintiff seeks to represent a class defined as: All persons in the United States who, during the applicable statute of limitations period, purchased Defendant's Products for personal, family, or household use, and not for resale or commercial use (the "Class").

97. Plaintiff seeks to represent a subclass defined as: All Class members who reside in New York who purchased the Products during the applicable statute of limitations period (the "New York Subclass") (together, with the Class, the "Classes").

98. Members of the Classes are so numerous that their individual joinder herein is impracticable. On information and belief, members of the Class number in the hundreds of thousands. The precise number of Class members and their identities are unknown to Plaintiff at this time but may be determined through discovery. Class members may be notified of the pendency of this action by mail and/or publication through the distribution records of Defendant and third-party retailers and vendors.

99. Common questions of law and fact exist as to all Class members and predominate over questions affecting only individual Class members. Common legal and factual questions include, but are not limited to, the nature and presence of artificial preservatives in the Products; whether the marketing, advertising, packaging, labeling, and other promotional materials for the Products are deceptive; whether Plaintiff and the members of the Classes paid more for the Products than they would have knowing the Products contained the artificial preservative citric acid and, if so, how much more was paid; and whether Plaintiff and the members of the Classes are entitled to attorneys' fees and costs.

100. The claims of the named Plaintiff are typical of the claims of the Class in that the named Plaintiff were exposed to Defendant's false and misleading marketing, purchased Defendant's Products, and suffered a loss as a result of those purchases.

101. Plaintiff is an adequate representatives of the Classes because his interests do not conflict with the interests of the Class members he seeks to represent; he has retained competent counsel experienced in prosecuting class actions; and he intends to prosecute this action vigorously. The interests of Class members will be fairly and adequately protected by their counsel.

102. The class mechanism is superior to other available means for the fair and efficient adjudication of Class members' claims. Each individual Class member may lack the resources to undergo the burden and expense of individual prosecution of the complex and extensive litigation necessary to establish Defendant's liability. Individualized litigation increases the delay and expense to all parties and multiplies the burden on the judicial system presented by the complex legal and factual issues of this case. Individualized litigation also presents a potential for inconsistent or contradictory judgments. In contrast, the class action device presents far fewer management difficulties and provides the benefits of single adjudication, economy of scale, and

comprehensive supervision by a single court on the issue of Defendant's liability. Class treatment of the liability issues will ensure that all claims and claimants are before this Court for consistent adjudication of the liability issues.

CAUSES OF ACTION

COUNT I: Violation of New York General Business Law Section 349
(On behalf of the New York Subclass)

103. Plaintiff incorporates by reference and reallege the allegations contained in Paragraphs 1 through 102 above as if fully set forth herein.

104. Plaintiff brings this cause of action on behalf of himself and on behalf of members of the New York Subclass against Defendant.

105. New York General Business Law ("NY GBL") Section 349(a) provides that "[u]nfair, deceptive, or abusive acts or practices in the conduct of any business, trade or commerce or in the furnishing of any service in this state are hereby declared unlawful."

106. NY GBL Section 349(h) provides a private right of action to any person injured by reason of any deceptive act or practice made unlawful by Section 349. Plaintiffs and the New York Subclass bring this claim under Section 349's prohibition on deceptive acts and practices.

107. Plaintiff and the New York Subclass members are persons within the meaning of NY GBL Section 349(h).

108. Defendant is a person that engaged in deceptive acts or practices made unlawful by NY GBL Section 349(a) and actionable by private plaintiffs under Section 349(h).

109. Defendant made false and misleading statements by marketing the Products, in both advertising and on the packaging of the Products, as free of artificial preservatives when the Products did contain citric acid, which is an artificial preservative.

110. Defendant's statement that the Products are free of artificial preservatives was misleading in a material way because the statement was likely to mislead a reasonable consumer, and in fact did mislead Plaintiffs and the members of the New York Subclass to believe the Products were free from artificial preservatives.

111. Defendant's statement that the Products are free of artificial preservatives was directed at Plaintiffs and the members of the New York Subclass.

112. Plaintiff and New York Subclass members suffered ascertainable loss as a direct and proximate result of Defendant's misrepresentations in that (a) they would not have purchased the Products had they known the truth, and (b) they overpaid for the Products on account of the misrepresentations that the Products are free of artificial preservatives.

113. On behalf of himself and other members of the New York Subclass, Plaintiff seeks to enjoin Defendant's unlawful acts and practices described herein, to recover their actual damages or $50, whichever is greater, reasonable attorneys' fees and costs, and any other just and proper relief available.

COUNT II: Violation of New York General Business Law Section 350
(On behalf of the New York Subclass)

114. Plaintiff incorporates by reference and reallege the allegations contained in Paragraphs 1 through 113 above as if fully set forth herein.

115. Plaintiff brings this cause of action on behalf of himself and on behalf of members of the New York Subclass against Defendant.

116. NY GBL Section 350 provides that "[f]alse advertising in the conduct of any business, trade or commerce or in the furnishing of any service in this state is hereby declared unlawful."

117. Defendant's labeling and advertisement of the Products were false and misleading because Defendant identified the Products as free of artificial preservatives when the Products did contain citric acid, which is an artificial preservative.

118. Defendant's statement that the Products are free of artificial preservatives was misleading in a material way because the statement was likely to mislead a reasonable consumer, and it did, in fact, mislead Plaintiffs and the members of thew New York Subclass to believe the Products were free from artificial preservatives.

119. Defendant's statement that the Products are free of artificial preservatives was directed at Plaintiffs and the members of the New York Subclass.

120. Plaintiff and New York Subclass members suffered ascertainable loss as a direct and proximate result of Defendant's misrepresentations in that (a) they would not have purchased the Products had they known the truth, and (b) they overpaid for the Products on account of the misrepresentation that the Products are free of artificial preservatives.

121. On behalf of himself and other members of the New York Subclass, Plaintiff seek to enjoin Defendant's unlawful acts and practices described herein, to recover their actual damages or $500, whichever is greater, reasonable attorneys' fees and costs, and any other just and proper relief available.

COUNT III: Breach of Express Warranty
(On behalf of the Classes)

122. Plaintiff incorporates by reference and reallege the allegations contained in Paragraphs 1 through 121 above as if fully set forth herein.

123. Plaintiff brings this cause of action on behalf of himself and on behalf of members of the Classes against Defendant.

124. Defendant, as the producer, marketer, distributor, and/or seller, expressly warranted that the Products are free of artificial preservatives.

125. Defendant's representations and warranties were part of the description of the goods and the bargain upon which the Products were offered for sale and purchased by Plaintiffs and members of the Classes.

126. The Products do not conform to Defendant's representations and warranties because the Products contain citric acid, an artificial preservative.

127. By falsely representing the Products in this way, Defendant breached its express warranty.

128. As a direct and proximate cause of Defendant's breach of express warranty, Plaintiff and members of the Classes have been injured and harmed in an amount to be proven at trial because they (a) would not have purchased the Products, and/or (b) would have paid substantially less for them, had they known they contained an artificial preservative.

129. On or about July 17, 2026, counsel for Plaintiff sent, via FedEx, letters to Defendant's principal business address, 700 Sylvan Avenue, Englewood Cliffs, New Jersey 07632 and to Defendant's registered agent in Delaware stating that the Plaintiff had purchased the Products multiple times, had relied on the statement that the Products were free of artificial preservatives, and considered the use of artificial citric acid to be a breach of that statement. These letters were delivered on July 20, 2026. As of the filing of this Complaint, no response to these letters has been received.

PRAYER FOR RELIEF

WHEREFORE Plaintiff, individually and on behalf of all others similarly situated, seeks judgment against Defendant, as follows:

a. For an order certifying the Class and New York Subclass under Rule 23 of the Federal Rules of Civil Procedure, naming Plaintiffs as representatives of the Class and New York Subclass, and naming Plaintiffs' attorneys as Class Counsel to represent the Class and New York Subclass;

b. For an order finding in favor of Plaintiffs and the Classes on all counts asserted herein;

c. For compensatory and statutory damages in amounts to be determined by the Court and/or jury;

d. For prejudgment and postjudgment interest on all amounts awarded, to the extent allowable;

e. For an order of restitution and all other forms of equitable monetary relief;

f. For an order enjoining Defendant from continuing the illegal practices detailed herein and compelling Defendant to undertake a corrective advertising campaign;

g. For an order awarding reasonable attorneys' fees and expenses and costs of suit; and

h. For any and all other legal or equitable relief that the Court deems just and proper.

DEMAND FOR TRIAL BY JURY

Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiffs demand a trial by jury of any and all issues in this action so triable as of right.

Dated: August 10, 2026
New York, New York

Respectfully submitted,

By: /s/ Mari K. Bonthuis

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**Pro Hac Vice Forthcoming*