

Artificial Flavoring

Denotes any of hundreds of allowable chemicals such as butyl alcohol, isobutyric acid, and phenylacetaldehyde dimethyl acetal. The exact chemicals used in flavoring are the proprietary information of food processors, used to imitate specific fruits, butter, spices, and so on.

FOUND IN

Thousands of highly processed foods such as cereals, fruit snacks, beverages, and cookies.

WHAT YOU NEED TO KNOW

The FDA has approved every item on the list of allowable chemicals, but because they are permitted to hide behind a blanket term, there is no way for consumers to pinpoint the cause of a reaction they might have had. If you're looking to cut the unknowns out of your diet, search the ingredient list for "Artificial Flavoring"—if a product contains any of the hundreds of allowable chemicals, it'll be on the list. And you can look for something else.

Aspartame

A near-zero-calorie [artificial sweetener](#) made by combining two amino acids with methanol. Most commonly used in [diet soda](#), aspartame is 180 times sweeter than sugar.

FOUND IN

More than 6,000 grocery items including diet sodas, yogurts, and the table-top sweeteners NutraSweet and Equal.

WHAT YOU NEED TO KNOW

Over the past 30 years, the FDA has received thousands of consumer complaints due mostly to neurological symptoms such as headaches, dizziness, memory loss, and, in rare cases, epileptic seizures. Human studies have shown aspartame to be completely harmless; a few rodent trials implicate the additive as a carcinogen. In fact, that's one of the reasons we argue that diet soda might not be worth drinking in this special report [The Truth About Diet Soda](#).

BHA and BHT (Butylated HydroxyAnisole and Butylated Hydroxytoluene)

Petroleum-derived antioxidants used to preserve fats and oils.

FOUND IN

Beer, crackers, cereals, butter, and foods with added fats.

WHAT YOU NEED TO KNOW

Of the two, BHA is considered the most dangerous. Studies have shown it to cause cancer in the forestomachs of rats, mice, and hamsters. The Department of Health and Human Services classifies the preservative as "reasonably anticipated to be a human carcinogen."

High Fructose Corn Syrup (HFCS)

A [corn-derived sweetener](#) representing more than 40 percent of all caloric sweeteners in the supermarket. In 2005, there were 59 pounds produced per capita. The liquid sweetener is created by a complex process that involves breaking down cornstarch with enzymes, and the result is a roughly 50/50 mix of fructose and glucose.

FOUND IN

Although it can be found in every [grocery aisle](#)—in products such as ice cream, chips, cookies, cereal, bread, ketchup, jam, canned fruits, yogurt, barbecue sauce, frozen dinners—about two-thirds of the HFCS consumed in the United States is in beverages. Check out our list of [the 20 Unhealthiest Drinks in America](#) to see some of the worst examples. You'll be shocked.

WHAT YOU NEED TO KNOW

Since around 1980, [the US obesity rate has risen proportionately to the increase in HFCS](#), and Americans are now consuming at least 200 calories of the sweetener each day. Some researchers argue that the body metabolizes HFCS differently, making it easier to store as fat, but this theory has not been proven. But recent research shows another potential concern: a study published in Environmental Health tested 55 common products with HFCS listed as one of the top three ingredients, and found that a third of them [contained mercury](#).

Partially Hydrogenated Vegetable Oil

A manufactured fat created by forcing hydrogen gas into vegetable fats under extremely high pressure, an unintended effect of which is the creation of **trans fatty acids**. Food processors like this fat because of its low cost and long shelf life.

FOUND IN

Margarine, pastries, frozen foods, cakes, cookies, crackers, soups, and nondairy creamers.

WHAT YOU NEED TO KNOW

Dozens of studies have **linked trans fat to heart disease**, which is why the cities of Boston and New York, and the state of California, have approved legislation to **phase out trans fat in restaurant kitchens**. Most health organizations recommend keeping trans fat consumption as low as possible, but a loophole in the FDA's labeling requirements allows processors to add as much as 0.49 grams per serving and still claim zero in their nutrition facts.

Red #3 (Erythrosine) and Red #40 (Allura Red)

Food dyes that are orange-red and cherry-red, respectively. Red #40 is the most widely used food dye in America.

FOUND IN

Fruit cocktail, candy, chocolate cake, cereal, beverages, pastries, maraschino cherries, and fruit snacks.

WHAT YOU NEED TO KNOW

The FDA once considered imposing a ban on the use of Red #3 in food, but thus far has not. However, after the dye was linked to thyroid tumors in rats, the FDA had the liquid form of the dye removed from external-use drugs and cosmetics.

Saccharin

An artificial sweetener that's 300 times sweeter than sugar. Invented in 1879, saccharin is the oldest of the five artificial sweeteners used in the United States.

FOUND IN

Diet foods, chewing gum, toothpaste, beverages, sugar-free candy, and Sweet 'N Low.

WHAT YOU NEED TO KNOW

Rat studies in the early '70s linked high doses of saccharin with bladder cancer, and the FDA moved to ban it. Congress, reacting to public pressure, intervened and mandated that a warning be printed on the label of every product containing saccharin. The warning was removed after 23 years, in the wake of findings that the cancer process saccharin triggers in rats does not apply to humans, and that no human studies found any cancer risk. More recent research found that rats on saccharin-sweetened diets **gain more weight** than those on sugar-sweetened diets.

Sucralose

A **zero-calorie artificial sweetener** made by joining chlorine particles and sugar molecules. It's 600 times sweeter than sugar.

FOUND IN

Sugar-free foods, pudding, low-calorie beverages, some diet sodas, and Splenda.

WHAT YOU NEED TO KNOW

Despite the controversy surrounding Splenda, sucralose is considered by many scientific bodies to be the least damaging of the artificial sweeteners. After reviewing 110 human and animal studies, the FDA concluded that the use of sucralose does not cause cancer. The sweetener is one of only three artificial sweeteners **deemed safe** by the Center for Science in the Public Interest.

Yellow #5 (Tartrazine) and Yellow #6 (Sunset Yellow)

The second and third most common food colorings, respectively.

FOUND IN

Cereal, pudding, bread mix, beverages, chips, cookies, and condiments.

WHAT YOU NEED TO KNOW

Researchers in the United Kingdom found that 3-year-olds given a drink containing both dyes (and other additives) showed more symptoms of hyperactivity than those who didn't ingest the chemicals. One study found that mice fed high doses of sunset yellow had trouble swimming straight and righting themselves in water.

To learn more about the chemicals and preservatives lurking in our food supply, click here for the full A-Z [Supermarket Survival Guide Food Additive Glossary](#).

Need more help navigating the nutritional pitfalls of the supermarket? [Join the Eat This, Not That! premium web site](#) and you'll have a 24-hour nutritionist at your fingertips, ready to help you print our personalized grocery lists and quickly scan thousands of packaged and restaurant foods.