

Comprehensive Additive Education

Acesulfame Potassium (Ace K) – E950

What it is: Artificial sweetener.

Why to avoid: The Center for Science in Public Interest says to avoid it because safety testing done in 1970's were inadequate and some research links it to cancer. See "Artificial Sweeteners".

Commonly found in: Diet drinks, protein shakes and powders, fruit cups, yogurts, "sugar-free" products.

Artificial Flavors

What it is: Synthetic flavor made from proprietary chemicals.

Why to avoid: These are used to make fake food taste real. This is not a single ingredient – each flavor may contain of up to 100 ingredients, including synthetic chemicals, solvents and preservatives such as BHA, propylene glycol, MSG, parabens, and more.

Commonly found in: Cereal, candy, drink mixes, desserts, soft drinks.

Artificial Sweeteners

What it is: Zero calorie sweeteners such as aspartame and sucralose.

Why to avoid: Although they have no calories, artificial sweeteners have been shown to contribute to weight gain by encouraging sugar cravings. Research finds they stimulate your appetite, increase sugar cravings, and promote fat storage and weight gain. Researchers from the University of Texas discovered that drinking sodas made with artificial sweeteners will expand your waist girth, which is a risk factor for type 2 diabetes. When you eat something sweet – even when it has no calories – your brain is tricked into wanting more calories because your body is not getting enough energy (i.e. calories) to be satisfied. So you keep craving sweets, eating sweets, and gaining weight. This is why a lot of people never reach their full health potential or weight loss goals, because they are constantly being pushed around by these chemical artificial sweeteners that trick the brain and body.

Commonly found in: Anything labeled "diet", "low calorie", "sugar-free", or "reduced sugar".

Aspartame (NutraSweet) – E951

What it is: Artificial sweetener.

Why to avoid: Linked to increased risk of brain tumors, lymphomas, leukemia and heart disease. This study showed that replacing sugar with aspartame simply increased hunger and the subjects compensated by eating more calories. See "Artificial Sweeteners".

Commonly found in: Diet drinks, protein shakes and powders, fruit cups, yogurts, chewing gum, "sugar-free" products.

Azodicarbonamide (aka "yoga mat chemical") – E927

What it is: Dough conditioner.

Why to avoid: The World Health Organization has linked it to respiratory issues, allergies and asthma. When the azodicarbonamide in bread is baked, there is research that links it to tumor development and cancer. Semicarbazide (a carcinogen) and urethane (suspected carcinogen) can form from azodicarbonamide during baking. This additive is banned in Europe and Australia, and The Center For Science In The Public Interest has called on the FDA to ban it in the U.S. as well.

Commonly found in: Sandwich breads, buns, rolls, and other baked goods.

BHA (butylated hydroxyanisole) – E320

What it is: Synthetic preservative.

Why to avoid: Shown to be an endocrine disruptor, linked to cancer, causing tumors in animal studies. The International Agency for Research on Cancer classifies BHA as "possibly carcinogenic to humans" and it's been deemed a "reasonably anticipated human carcinogen" by the U.S. Dept. of Health & Human Services,

National Toxicology Program. It's also on EWG's Dirty Dozen List of Food Additives to avoid and banned in other countries.

Commonly found in: Sausage, pepperoni, pizza, canned soup, boxed potatoes, potato chips, drink mixes, canned refried beans, spaghetti sauce, chewing gum.

BHT (butylated hydroxytoluene) – E321

What it is: Synthetic preservative.

Why to avoid: Shown to affect the signaling from our gut to brain which tells us to stop eating, which could contribute to overeating and obesity. BHT is an endocrine disruptor which is also linked to cancer in some animal studies. The EWG includes BHT on their Dirty Dozen List of Food Additives to avoid.

Commonly found in: Cereal, packaged nuts, pepperoni, cake mix, granola bars.

Blue 1 (Brilliant Blue) – E133

What it is: Artificial blue dye derived from petroleum.

Why to avoid: This is one of the worst artificial colors because it has been shown to cross the blood-brain barrier. According to testimony at a FDA committee meeting, the FDA asked doctors to stop adding Blue #1 to tube feedings because “patients were dying, not from their disease, but from the Blue number 1, which apparently caused refractory hypotension and metabolic acidosis, and also, incidentally, turned their colons bright blue.” This dye is also linked to hyperactivity and an increased risk of kidney tumors. Some research suggests it is a potential neurotoxin.

Commonly found in: Candy, drink mixes, soft drinks, chewing gum, toaster pastries, popsicles, marshmallows, fruit snacks.

Calcium Peroxide – E930

What it is: Bleach and dough conditioner.

Why to avoid: Its use is a sign that the product is heavily processed. Banned in Europe and China (and also from some natural food stores like Whole Foods in the U.S.)

Commonly found in: Croutons, sandwich breads, buns, rolls, and other baked goods.

Calcium Propionate – E282

What it is: Mold inhibitor.

Why to avoid: Considered a safer preservative, but research published in the Journal of Paediatric Child Health links it to “irritability, restlessness, inattention and sleep disturbance in some children” and long term consumption has been shown to damage the stomach lining and induce ulcers.

Commonly found in: Croutons, sandwich breads, buns, rolls, and other baked goods.

Canola Oil

What it is: Refined cooking oil.

Why to avoid: Goes through an insane amount of processing with chemical solvents, steamers, neutralizers, de-waxers, bleach and deodorizers before it ends up in the bottle. Most often extracted with the neurotoxin hexane – it's literally bathed in it. Some hexane residue can remain in the oil, and the FDA doesn't require food manufacturers to test for residues. Canola oil is extracted from rapeseed plants, that have been bred to have lower levels of toxic erucic acid. Before it was bred this way, it was called Rapeseed Oil and used for industrial purposes because the erucic acid in it caused heart damage in animal studies. It got the fancy new name “canola”, but it still contains trace amounts of erucic acid (up to 2%, which they consider “safe”). In 1995 they also began genetically engineering (GMO) rapeseed to be resistant to herbicides, and now almost all canola crops in North America are GMO. Research has also found some trans fat in canola oil, created during the heavy processing that it goes through. These trans fats are not labeled.

Commonly found in: Boxed mixes, bakery items, desserts, dressings, sauces, frozen meals, crackers, snack foods.

Caramel Color – E150

What it is: Brown food coloring.

Why to avoid: There are 4 different types of caramel color used by the food industry. Class IV caramel color (E150d) is the most common type used, but the label will only say “caramel color”. This type is created by heating ammonia and sulfites under high pressure – a process that produces a cancerous substance called 4-methylimidazole (4-MEI). A federal study in 2007 concluded that 4-MEI ingestion led to cancer in mice, and the International Agency for Research on Cancer determined the chemical to be “possibly carcinogenic” to humans. In 2011, the Center for Science in the Public Interest petitioned the FDA to ban caramel coloring due to safety concerns and the cancer risk. Likewise in 2014, the Consumers Union (the policy and action arm of Consumer Reports) petitioned the FDA to set a federal standard for 4-MEI and in the meantime to require manufacturers to list the type of caramel color they use on their products’ ingredient lists and bar them from foods with the “natural” label. It has no nutritional benefits and is only used cosmetically to improve the appearance of food. It’s sometimes added unnecessarily to food and drinks that are naturally brown.

Commonly found in: Soft drinks, pancake syrup, coffee shop drinks, cereal, deli meat, soups.

Carrageenan – E407

What it is: Thickener and emulsifier to keep ingredients from separating.

Why to avoid: Known to cause digestive problems and intestinal inflammation. It is also contaminated with “degraded carrageenan”. Tests have found as much as 25% degraded carrageenan in “food-grade carrageenan” (the kind used in food and drinks). Degraded carrageenan is classified as a “possible human carcinogen” by the International Agency for Research on Cancer.

Commonly found in: Almond milk, coconut milk, soy milk, dairy-free milks, ice cream, deli meat, cottage cheese, coffee creamers.

Cellulose – E460

What it is: Anti-caking agent and thickener usually made from wood. It is also sometimes used to bulk up foods with fake fiber.

Why to avoid: Cellulose is much cheaper to obtain from wood than from vegetables, so the food industry uses wood byproducts to make it. Cellulose can also come from vegetables, but will be listed on the label as such (very rare). Research links consumption of this additive (not naturally occurring) to weight gain, inflammation and digestive problems.

Commonly found in: Shredded cheese, pizza, spice mixes, pancake syrup, foods labeled as “high fiber” or “added fiber”.

Citric Acid – E330

What it is: Preservative and flavor (sour taste).

Why to avoid: Although citric acid is naturally found in lemon and other fruits, the additive used in packaged foods is typically derived from mold made with GMO corn (not from fruit). Frequent consumption is linked to an increase in tooth decay and also can irritate the gut.

Commonly found in: Juice, bottled ice tea, citrus-flavored sodas, energy drinks, baby food, flavored chips, candy, canned tomatoes.

Corn Oil

What it is: Refined cooking oil.

Why to avoid: Goes through an insane amount of processing with chemical solvents, steamers, neutralizers, de-waxers, bleach and deodorizers before it ends up in the bottle. Most often extracted with the neurotoxin hexane – it’s literally bathed in it. Some hexane residue can remain in the oil, and the FDA doesn’t require food manufacturers to test for residues. Comes from GMO corn unless Non-GMO Project verified or organic.

Loaded with omega-6 polyunsaturated fatty acids that are unstable when exposed to heat. This instability causes oxidation, a process that generates free radicals. Free radicals are renegade molecules in the body that damage cells, triggering a host of diseases from liver damage to cancer.

Commonly found in: Chips, frozen meals, coated pretzels, cookies, sausages, snack mix, crackers, microwave popcorn, canned soups and chili.

Corn Syrup

What it is: Heavily processed form of sugar made from corn.

Why to avoid: This refined sugar has no nutritional value. Typically made from GMO corn that produces its own insecticide (unless organic or Non-GMO Project verified).

Commonly found in: Sauces, crackers, desserts, pie, pancake syrup.

Cottonseed Oil

What it is: Refined cooking oil.

Why to avoid: This oil is made from a byproduct of the industrial waste from the cotton farming industry, which isn't a food crop. Despite being one of the most prevalent GMO crops (designed to produce an insecticide), cotton crops still require an intense application of agricultural chemicals and that's why cotton has been called the "World's Dirtiest Crop". Residues from these pesticides can remain in cottonseed oil according to data collected by the FAO/WHO Joint Meetings on Pesticides Residues in Food. To extract the oil the cottonseeds are subjected to intensive chemical refining with toxic hexane, bleach, and deodorizers.

Commonly found in: Fries, fried foods, chips, baked goods.

DATEM (Diacetyl Tartaric Acid Esters of Monoglycerides) – E472e

What it is: Dough conditioner that is usually derived from soybean or canola oil (GMO crops).

Why to avoid: This ingredient can be a hidden form of deadly trans fat. See "Monoglycerides".

Commonly found in: Sandwich breads, buns, baked goods, crackers.

Dextrose

What it is: Heavily processed form of sugar, usually made from corn. Also used as a filler.

Why to avoid: This refined sugar has no nutritional value. Typically made from GMO corn that produces its own insecticide (unless organic or Non-GMO Project verified).

Commonly found in: Chips, artificial sweeteners, frozen meals, cake mix, cookies, cereal, meat sticks.

Dimethylpolysiloxane ("silly putty" ingredient) – E900

What it is: Defoaming agent.

Why to avoid: There have been no major studies conducted on the safety of dimethylpolysiloxane in food by the FDA or the Food Industry since it was approved in 1998, but the food industry is allowed to use it in anything they want (except milk). Most of the safety studies were conducted or paid for by the chemical companies, and not enough independent research has been done. The FDA allows it to be preserved with formaldehyde, a very toxic substance.

Commonly found in: French fries, deep fried foods, yogurt, fountain drinks, phase oil (butter substitute used by some restaurants).

Enriched Flour and Bleached Flour

What it is: Heavily processed flour with synthetic vitamins and minerals added.

Why to avoid: Flour can be treated with any of the 60 different chemicals approved by the FDA before it ends up on store shelves – including chemical bleach. The industrial processing destroys nutrients, such as Vitamin E and fiber. It has no nutritional value and is essentially dead food, so they "enrich" it with synthetic vitamins (niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid) that are not from nature. (See "Synthetic Vitamins"). Wheat has been heavily hybridized to make it easier for the food industry, is believed to be contributing to an increase in celiac disease, and is often sprayed directly with Monsanto's Roundup herbicide.

Commonly found in: Sandwich breads, buns, rolls, and other baked goods.

Erythritol – E968

What it is: Sugar alcohol and low-calorie sweetener.

Why to avoid: It can wreak havoc on healthy gut bacteria, which can lead to a whole host of diseases and if you're trying to lose weight or stay slim, keeping your gut healthy is vital! Erythritol is also known to cause diarrhea, stomach upset, headache when consumed in "normal amounts", is a powerful insecticide, and can also increase appetite just like artificial sweeteners do so you'll end up eating more food. Research by Cornell University shows that the body metabolizes erythritol and associates high levels of erythritol in the blood to weight gain, which has spawned more studies. Although this is a naturally occurring sugar that is sometimes found in fruit, food manufacturers don't actually use the natural stuff. Instead they usually start with GMO corn (unless organic or non-GMO verified) and then put it through a complex fermentation process to come up with chemically pure erythritol.

Commonly found in: Stevia products, diet drinks, yogurt, pudding cups.

Fructose or Fructose Syrup

See "HFCS-90"

Gellan Gum (E418), Locust Bean Gum (E410), and Guar Gum (E412)

What it is: Thickener.

Why to avoid: These ingredients are known to cause stomach issues like bloating and gas in people who have sensitive digestive systems.

Commonly found in: Almond milk, coconut milk, soy milk, non-dairy milks and creamers, ice cream, cottage cheese.

High Fructose Corn Syrup (HFCS)

What it is: Heavily processed sweetener made from cornstarch, contains more fructose than regular corn syrup.

Why to avoid: This sweetener increases appetite, the risk of weight gain, type 2 diabetes, heart disease, cancer and dementia. HFCS especially contributes to type 2 diabetes in children. One study also found it can be contaminated with toxic mercury.

Commonly found in: Soft drinks, pancake syrup, BBQ sauce, ketchup, cookies, breads, buns, frosting, pies.

HFCS-90 (Fructose or Fructose Syrup)

What it is: Heavily processed sweetener made from cornstarch, contains more fructose than high fructose corn syrup. Regular HFCS contains up to 55% fructose, whereas HFCS-90 has 90% fructose by weight. This is 9 times more fructose than the average fruit.

Why to avoid: An overload of fructose in the diet is associated with obesity and cardiovascular disease. HFCS-90 is derived from corn starch, which is likely GMO. Some companies say that fructose is natural and comes from fruit, but this processed additive is typically derived from GMO corn. When HFCS-90 is used, the ingredient label won't indicate that "high fructose corn syrup" is an ingredient, rather it is deceptively labeled as "fructose" or "fructose syrup" without any reference to high fructose corn syrup.

Commonly found in: Yogurt, cereal, granola bars, potato chips.

Hydrolyzed Protein (any type of hydrolyzed protein)

See "Monosodium Glutamate".

Maltodextrin

What it is: Heavily processed starch used as a filler, thickener, preservative and sweetener.

Why to avoid: Has been shown to negatively affect gut bacteria which can put you at greater risk of disease. It has no nutritional value (not real food) and can be used as a "filler" to artificially increase the volume of processed foods, so this indicates a heavily processed food. Typically derived from GMO corn (unless organic or Non-GMO Project verified). It is also a hidden form of MSG.

Commonly found in: Potato chips, mac n' cheese, frozen meals, powder drink mixes, pudding.

Monoglycerides and Diglycerides (mono- and diglycerides) – E471

What it is: Emulsifier which helps keep ingredients from separating.

Why to avoid: It is made from oil byproducts including partially hydrogenated canola and soybean oils – which contain artificial trans fat, making this additive a hidden source of trans fat in our food. It is permitted even in foods labeled as “0 grams of trans fat” because it is categorized as an emulsifier (not a lipid) by the FDA. The consumption of artificial trans fat is strongly correlated with an increased risk of type 2 diabetes and heart disease. The CDC has linked it to at least 20,000 heart attacks per year and the Institute of Medicine says trans fats have “no known health benefit” and there is no safe level to eat.

Commonly found in: Ice cream sandwiches, low-fat ice cream, frozen yogurt, peanut butter, margarine, non-dairy creamer, tortillas, bread.

Monosodium Glutamate (MSG) – E621

What it is: Artificial flavor enhancer.

Why to avoid: Purely used to increase food cravings and irresistibility, so you eat more than you should. Linked to headaches, obesity, depression, and mental disorders. It is also an excitotoxin (excites brain cells to death), which is associated with neurodegenerative diseases. Besides the additive monosodium glutamate (MSG), the food industry sneaks in other additives – such as yeast extract and hydrolyzed proteins – that contain free glutamic acid, which is the main component of MSG.

Commonly found in: Frozen meals, chips, dressings, soups, rice and pasta mixes.

Natural Flavors

What it is: Flavors made from a proprietary mixture of chemicals derived from anything in nature.

Why to avoid: The only difference between natural and artificial flavors, is that natural flavors are derived from things found in nature. Natural flavors are used to make fake food taste real. Every flavor may contain up to 100 ingredients, including “synthetic chemicals such as the solvent propylene glycol or the preservative BHA” as well as GMO-derived ingredients (unless organic or Non-GMO Project verified). Flavors can also include excitotoxins like MSG that cause your taste buds to experience irresistibility when it comes to food. See “MSG”.

Commonly found in: Almost all processed food.

Neotame – E961

What it is: Artificial sweetener.

Why to avoid: Relatively new and rarely used, but some health experts warn that it is more harmful to our health than aspartame – a neurotoxin – but its safety is still up in the air. Often used along with other artificial sweeteners. See “Artificial Sweeteners”.

Commonly found in: Diet juice, yogurt, chewing gum, diet soda, orange drink, drink mixes.

Propylparaben (E216) or Methylparaben (E218)

What it is: Synthetic preservatives.

Why to avoid: Parabens are endocrine-disrupting chemicals linked to breast cancer and reproductive problems. EWG includes propylparaben on their Dirty Dozen list of top food additives to avoid.

Commonly found in: Snack cakes, desserts, frosting, tortillas.

Partially Hydrogenated Oils (Artificial Trans Fat)

What it is: Oil that has been solidified with chemical processing. Typically made with GMO soybean, cottonseed, or canola oil.

Why to avoid: Strongly correlated with an increased risk of type 2 diabetes and heart disease. The CDC has linked it to at least 20,000 heart attacks per year and the Institute of Medicine says trans fats have “no known health benefit” and there is no safe level to eat. The FDA is requiring all food manufactures to remove partially hydrogenated oils by June 2018, but food companies can still petition the FDA for a special permit to continue using it. The FDA allows any product is labeled “0 grams of Trans Fat” to contain up to 0.5 grams of trans fat per serving, plus other additives contain trans fat. See “Monoglycerides”.

Commonly found in: Frosting, baked goods, non-dairy creamers, cookies, crackers.

Propyl Gallate – E310

What it is: Synthetic preservative.

Why to avoid: Linked to increased risk of tumors and endocrine disruption and is on EWG's list of additives to avoid.

Commonly found in: Sausage, pizza, stuffing mix.

Red 3 (Erythrosine) – E127

What it is: Artificial red dye derived from petroleum.

Why to avoid: Recognized as an animal carcinogen it was banned from cosmetics in 1990, yet the FDA still permits it in food.

Commonly found in: Strawberry milk, baked goods, maraschino cherries, candy, sausage casings.

Red 40 (Allura Red) – E129

What it is: Artificial red dye derived from petroleum.

Why to avoid: The most popular artificial color used in the U.S., linked to hyperactivity in children. Europe requires any food containing this dye to carry the warning label, "May Have an Adverse Effect on Activity and Attention in Children." This is why many food companies use natural colors in Europe instead. Controversial research suggests this dye can accelerate the appearance of tumors. It has no nutritional benefits and is only used cosmetically to improve the appearance of food.

Commonly found in: Soft drinks, candy, cake, frosting, cookies, fruit cups, cherry filling, popsicles, toaster pastries, cereal bars, cereals, ice cream, yogurt, drink mixes.

Sodium Benzoate (E211) or Potassium Benzoate (E212)

What it is: Synthetic preservatives.

Why to avoid: When combined with either ascorbic acid (vitamin C) or erythorbic acid it produces benzene, a known carcinogen.

Commonly found in: Soft drinks, pickles, syrups, sauces, salad dressing.

Sodium Nitrate (E251) and Sodium Nitrite (E250)

What it is: Synthetic preservatives.

Why to avoid: Linked to increased risk of cancer.

Commonly found in: Deli meat, ham, sausage, hot dogs, bacon, jerky, meat snacks.

Sodium Phosphate (E339)

What it is: Preservative.

Why to avoid: It is so commonly used that if you eat processed food, you likely eat it daily. When you eat phosphate additives often, it can lead to excessive levels of phosphate in the blood and puts you at risk of chronic kidney disease, increased mortality, heart disease, and accelerated aging. The EWG warns that sodium phosphate is a top additive to avoid.

Commonly found in: Cooked chicken, pudding, gelatin, mac n' cheese, frozen desserts, frozen meals, soup, deli meat, imitation cheese slices.

Soybean Oil (Vegetable Oil)

What it is: Refined cooking oil.

Why to avoid: One of the most unhealthy oils out there which increases the risk of obesity, inflammation, cardiovascular disease, cancer, and autoimmune diseases. It's almost always made from GMO soybeans (unless organic or Non-GMO Project verified). When researchers tested GMO soybeans they found that they contain high levels of residues from the herbicide glyphosate (Monsanto's Roundup) compared to non-GMO soybeans. Glyphosate was deemed a probable carcinogen by the World Health Organization (WHO), and is

also linked to kidney disease, birth defects, and autism. To extract the oil, the soybeans are typically subjected to intensive chemical refining with toxic hexane, bleach, and deodorizers.

Commonly found in: Vegetable oil, salad dressing, crackers, cookies, baked goods, trail mix, potato chips, frozen meals, frozen desserts, buns, soup, sauces.

Soy Protein Isolate

What it is: Heavily processed protein supplement made from soy flour that has fiber, fat, and nutrients removed.

Why to avoid: Soy can cause hormonal disruptions because it has estrogen-mimicking properties. Soy also has an abundance of phytic acid that leaches calcium and other vital minerals from your body. The soy protein is usually extracted with the neurotoxin hexane (and the final product may contain residues of hexane). It's also almost always made from GMO soybeans (unless organic or Non-GMO Project verified). When researchers tested GMO soybeans they found that they contain high levels of residues from the herbicide glyphosate (Monsanto's Roundup) compared to non-GMO soybeans. Glyphosate was deemed a probable carcinogen by the World Health Organization (WHO), and is also linked to kidney disease, birth defects, and autism.

Commonly found in: Protein powder, protein shakes, protein bars, veggie burgers, veggie dogs, soup, frozen meals.

Sucralose (Splenda) – E955

What it is: Artificial sweetener made by chlorinating sugar.

Why to avoid: Independent animal research links it to leukemia and other blood cancers. It's also been shown that artificial sweeteners are doing little to help people lose weight and are actually linked to weight gain. See "Artificial Sweeteners".

Commonly found in: Chewing gum, diet sodas and drinks, ice tea, yogurt, pudding, fruit cups.

Stevia Extract (rebaudioside A or reb A)

What it is: Low-calorie sweetener.

Why to avoid: This is not the same as whole stevia leaf that you can grow in your backyard. The extract is highly processed using a patentable chemical-laden process that includes about 40 steps to process the extract from the leaf, relying on chemicals like acetone, methanol, ethanol, acetonitrile, and isopropanol. Some of these chemicals are known carcinogens (substances that cause cancer). Most stevia formulations on the market also contain natural flavors and either erythritol or dextrose. Look for "Whole Leaf Stevia" or an extract that contains no additional additives instead.

Commonly found in: Soft drinks, coconut water, kombucha, bottled tea, protein drinks, protein bars, juice, yogurt.

Synthetic Vitamins

What they are: Lab-created vitamins made from a variety of sources like coal tar, petroleum or GMOs.

Examples: Vitamin A Palmitate, Thiamine (vitamin B1), Riboflavin (vitamin B2), Ascorbic Acid (vitamin C), Folic Acid.

Why to avoid: These vitamins differ from their natural counterpart, thus they aren't believed to be absorbed by your body as well as naturally present vitamins that you get from whole food. These are often found in foods labeled "Enriched" or "Fortified". Some of these fortified foods have been found to have dangerously high levels of synthetic vitamins and minerals – especially for kids.

Commonly found in: Cereal, bread, snack bars, protein drinks, meal replacements, supplements, milk.

Tapioca Starch

What it is: Starch often used to replace wheat in gluten-free foods.

Why to avoid: Tapioca starch can be hard to avoid completely on a gluten-free diet – but it's something to be aware of and to limit in the diet. It is very high in carbohydrates, but hardly contains any fiber, fat, protein, vitamins or minerals, and basically just supplies empty calories that can spike blood sugar more than refined sugar does.

Commonly found in: Gluten-free bread, gluten-free tortillas, gluten-free baked goods, gluten-free crackers.

TBHQ (tert-butylhydroquinone) – E319

What it is: Synthetic preservative.

Why to avoid: It has been linked to vision disturbances, liver enlargement, childhood behavioral problems, stomach cancer, and most recently, to the rise in food allergies. Research shows that TBHQ negatively affects “T-cells” in the body in a way that promotes allergies to tree nuts, milk, eggs, wheat and shellfish. It's also banned for use in food in other countries including Japan, and is on the Center For Science in The Public Interest's list as one of the worst food additives to be avoided. This ingredient is not always on the label.

Often found in: crackers, cookies, microwave popcorn, peanut butter chocolates, pastries, biscuits, frozen pizza.

Titanium Dioxide – E171

What it is: Food color used to brighten and whiten.

Why to avoid: Microscopic particles (nanoparticles) of titanium dioxide are sometimes used to make white foods even whiter and brighter, however it is not always labeled. According to Friends of the Earth, there's been “a tenfold increase in unregulated, unlabeled “nanofood” products on the American market since 2008... made by major companies including Kraft, General Mills, Hershey, Nestle, Mars, Unilever, Smucker's and Albertsons. But due to a lack of labeling and disclosure, a far greater number of food products with undisclosed nanomaterials are likely currently on the market”. Nanoparticles have been shown to carry risks to human health and the environment, and nanoparticles of titanium dioxide are specifically linked to cancer, gastrointestinal inflammation and changes to digestive cell structure. As put by the Natural Resources Defense Council, “Nanoparticles...are also more toxic than their normal-sized counterparts. Because they are so small, nanoparticles are extremely mobile...Once inside the body, they seem to have unlimited access to all tissues and organs, including the brain and likely also the fetal circulation, and may cause cell damage that we don't yet understand”.

Commonly found in: Yogurt, cottage cheese, powdered sugar, candy, chewing gum, pudding, drink mixes, marshmallows, mayonnaise.

Vanillin

What it is: Artificial flavor (imitation vanilla) typically made from petrochemicals and wood pulp.

Why to avoid: It is fake food and as an artificial flavor, it tricks your brain into believing that you are eating real vanilla. It also doesn't contain all of the antioxidants found in real vanilla extract that are good for the body.

Commonly found in: Milkshakes, ice cream, yogurt, protein shakes, candy.

Yeast Extract (autolyzed yeast extract)

See “Monosodium Glutamate”

Yellow #5 (Tartrazine – E102) and Yellow #6 (Sunset Yellow – E110)

What it is: Artificial yellow dyes derived from petroleum.

Why to avoid: Linked to several health issues, including allergies and hyperactivity in children. Europe requires any food containing dyes to carry the warning label, “May Have an Adverse Effect on Activity and Attention in Children.” This is why many food companies use natural colors in Europe instead. These dyes have been

found to be contaminated with carcinogens, such as benzidine. They have no nutritional benefits and are only used cosmetically to improve the appearance of food.

Commonly found in: Candy, fruit snacks, cereals, mac n' cheese, chips, pickles.