SUMMARY OF THE

Seed Oil Free Certification Standards

The Seed Oil Free Alliance represents a growing public health movement to accelerate the availability of Seed Oil Free food options through trust, transparency, and technology.

We provide third-party certifications for consumer packaged goods (CPG) companies and restaurants that communicate a clear commitment to using healthier oils and fats.

Our industry-leading lab testing protocols prove beyond any doubt that oil and fat ingredients are pure, protecting industry and consumers from fraudulently mislabeled or adulterated oils and fats.

We also offer credible, factual evidence and educational resources to support public awareness and informed decisions by consumers, with a focus on industry transparency and reform. Join our mission.











SEED OIL FREE CERTIFIED MEANS...

The trademarked "Seed Oil Free Certified" Seal guarantees consumers that the foods they choose are free from all seed oils and have undergone independent laboratory testing to ensure the purity of added oils and refined fat ingredients.









Seed oils are...

Seed oils are liquid fats refined from the seeds of plants. By the botanical definition of "seed," oils made from nuts are also considered seed oils.

In contrast, "vegetable oil" is a broader term that includes any edible oil made from a plant. Therefore, while all seed oils can be called vegetable oils, not all vegetable oils are seed oils.

The problems with seed oils are...

Today, the average American consumes 20-30% of their daily calories from seed oils like soybean, corn, and canola oil.^{1,2} These ingredients are commonly used in ready-to-eat foods, in restaurant applications, and as home cooking oils.

In general, seed oils are high in linoleic acid, an omega-6 fat. As a result, people today are consuming more omega-6 fats, and less omega-3 fats, than ever before in human history.^{3,4} A high ratio of omega-6 to omega-3 fats is associated with increased risk of serious health problems, including obesity, cardiovascular disease, and cancer.^{5,6}

Seed oils are also high in polyunsaturated fatty acids, which are molecularly unstable compared to monounsaturated fats and saturated fats. Polyunsaturated fats break down rapidly and form measurable levels of harmful byproducts including trans fats, aldehydes, hydroxy alkenals, 10,11 polymers, 12 and polycyclic aromatic hydrocarbons (PAHs) when heated and during storage Consuming heated seed oils from snacks, restaurant foods, or home cooking is linked with serious health problems, including cancer, and cardiovascular, liver, kidney, bone, and neurological diseases. 15,16,17,18

Lastly, most seed oils undergo extensive processing to remove unwanted odors and flavors. Unfortunately, this refinement process also removes naturally occurring micronutrients and antioxidants that help stabilize the fatty acids and provide health benefits. Dompared to traditional options like extra virgin olive oil, which is minimally refined and high in beneficial antioxidants, highly refined seed oils are less stable and also provide less nutritional value. Do not seed oils are less stable and also provide less nutritional value.

Before the 20th century, these seed oils weren't available as ingredients because the industrial technology to extract them from seeds profitably didn't exist. But since their introduction into the food supply, consumption has grown each decade and continues to grow today.^{3,2}

Harmful Seed Oils are...

The following seed oils are designated as "Harmful Seed Oils" and are disallowed ingredients for Seed Oil Free Certification purposes:

- · Soybean oil
- · Corn oil
- · Canola (rapeseed) oil
- · Sunflower oil
- · Peanut oil
- · Grapeseed oil
- · Safflower oil
- · Rice bran oil
- · Cottonseed oil
- Flaxseed oil

Harmful seed oils are high in omega-6 linoleic acid or other polyunsaturated fats and are also highly refined. Today, a growing number of companies are replacing harmful seed oils with healthier oils and fats to honor the preferences of health-conscious consumers.

Low-concern Seed Oils are...

"Low-concern Seed Oils" are a distinct category of seed oils provided for consumer education purposes. While our certification doesn't allow their use in Seed Oil Free Certified products or offerings, these oils are less refined, less prone to oxidation, lower in inflammatory omega-6 fats, or higher in micronutrients or antioxidants compared to Harmful Seed Oils.

The Seed Oil Free Alliance designates the following seed oils as "Low-concern Seed Oils":

- · Almond oil
- Argan oil
- · Brazil nut oil
- · Cashew oil
- · Chia seed oil
- · Hazelnut oil
- Hemp seed oil
- · High-oleic safflower oil

- · High-oleic soybean oil
- · High-oleic sunflower oil
- · Macadamia nut oil
- · Pecan oil
- · Pine nut oil
- · Pistachio oil
- · Poppy seed oil
- · Pumpkin seed oil
- · Sesame oil
- · Walnut oil

Not all seed oils are the same. Consumers who wish to use Low-concern Seed Oils oils for finishing or seasoning purposes (for example, toasted sesame oil in East Asian cooking) or for certain home cooking applications, should be aware they aren't as harmful as Harmful Seed Oils.

For many Low-concern Seed Oils, the distinction of how they're typically used is also important. Unlike Harmful Seed Oils, which are often used in large amounts and sometimes reheated multiple times, Low-concern Seed Oils are often used in lesser amounts than Harmful Seed Oils and less likely to be used in applications where reheating occurs (for example, commercial fryer oil).

Sesame oil is an example of a traditional seed oil that's high in plant-based antioxidants and can be produced without modern industrial methods.21 Its use as an edible oil in healthy, traditional cuisine dates back thousands of years.

While we don't see any problems with consumers using sesame oil as an ingredient in traditional recipes, it is extracted from a seed and therefore cannot be present in any Seed Oil Free Certified products.

Ultimately, consumers who prefer to avoid all seed oils can always trust the Seed Oil Free Certified Seal. Readyto-eat foods and cooking oils that contain any seed oil, including "Low-concern Seed Oils," are ineligible for certification because Seed Oil Free Certified foods are laboratory-tested to ensure they are 100% free of all seed oils, period.

Other disallowed ingredients are...

In addition to disallowing all seed oils for certification purposes, the following "Secondary Disqualifying Ingredients" also render a product or offering ineligible for Seed Oil Free Certification:

· Artificially hydrogenated oils of any type (including partially or fully hydrogenated)

- · Interesterified oils or fats of any type
- · Canola lecithin
- · Corn lecithin
- · Safflower lecithin
- · Soybean lecithin

Further, wholesale oils or fats that contain as a sub-ingredient any Secondary Disqualifying Ingredient, artificial preservative or stabilizer, anti-foaming agent, artificial coloring, artificial flavoring, or other added ingredient type not specified in the paragraph below are disallowed.

Wholesale oils or fats that contain allowed oils or fats that also contain as sub-ingredients natural preservatives (e.g. tocopherols), natural flavors, natural flavoring ingredients, or other natural ingredients added for similar purposes, are eligible for the certification process.

The determination of any oil or fat ingredient for certification eligibility on the basis of other added sub-ingredients relies on the wholesale oil or fat product sub-ingredient list.

Sunflower lecithin is...

Sunflower lecithin is allowed at a limit of 0.5% (w/w of finished goods) in Seed Oil Free Certified products and offerings, while canola, corn, safflower, and soybean lecithins are not allowed.

Products that contain sunflower lecithin in amounts greater than 0.5% w/w are not eligible for certification. Brand partners offering foods that contain sunflower lecithin are encouraged, but not required, to list the amount of lecithin contained in each serving of the

product in an optional packaging disclaimer.

Lecithins do not fit the technical definition of seed oils due to their high phospholipid content, but canola, corn, safflower, and soybean lecithins are refined from industrial processes during the production of seed oils. These ingredients are excluded from Seed Oil Free Certification.

In contrast, high-quality sunflower lecithin is often produced using a "cold-pressing" method and provides more phosphatidylcholine,22 indicating a higher nutritional value than other forms of lecithin. It is demonstrated to be less prone to oxidation compared to soybean lecithin.²³ Additionally, when used as an emulsifier or stabilizer, sunflower lecithin improves the overall oxidative stability of oils and fats in food products.24

Release agents and other substances...

Release agents and other substances that come into contact with foods are typically omitted from product ingredients lists but are still subject to the same

certification requirements as ingredients used in products or offerings. Products and offerings that come into contact with release agents or other substances that contain disallowed ingredients (seed oils or Secondary Disqualifying Ingredients) are not eligible for Seed Oil Free Certification.

Allowed oils and fats are...

These Seed Oil Free allowed oils and fats are low in omega-6 fats, more heat-stable for cooking, and generally have higher nutritional values than refined seed oils:

- · Avocado oil (any type)
- Butter, ghee, clarified butter, tallow, lard, and other rendered or extracted animal fats
- · Cocoa/cacao butter
- Coconut oil (any type, including fractionated coconut oil and medium-chain triglycerides)
- Culinary oils created through fermentation or other novel processes with non-seed raw materials and containing not more than 20% linoleic acid, not more than 2% alpha-linolenic acid, and not more than 20% total polyunsaturated fatty acids
- · Olive oil (any type)
- · Palm fruit fat (including palm olein, palm stearin, etc.)
- · Palm kernel fat
- Blends of listed allowed oil ingredients (may be tested as a blend, or as individual components, at the discretion of Seed Oil Free Alliance)
- Naturally flavored or imbued oils made with allowed oil ingredients (for example, truffle oil that is made with a base of extra virgin olive oil)
- Other non-seed oils or refined fats not listed: A lab test to determine purity will be conducted if the oil or fat ingredient does not fit the botanical definition of a seed oil, the reference linoleic acid content is not more than 20%, and the reference alpha-linolenic acid content is not more than 4%

All allowed oils and refined fats are regularly tested for purity in an independent lab to ensure certified products are truly Seed Oil Free.

Cocoa butter and palm kernel fat are...

While cocoa butter and palm kernel fat are made from the seed portion of plants (the *Theobroma cacao* tree or oil palm species from the *Elaeis* genus, respectively), they are solid at room temperature and are not considered seed oils for certification purposes.

Culinary oils are generally understood to be fats that are liquid at room temperature due to a high content

of unsaturated fatty acids. In contrast, fats that are solid at room temperature (approximately 70°F) due to low content of unsaturated fatty acids (and low content of polyunsaturated fatty acids in particular) are not oils.

The distinction is critically important due to the facts that, unlike seed oils, cocoa butter and palm kernel fat are extremely low in omega-6 linoleic acid and, unlike harmful seed oils, are not highly prone to oxidation.

Other ingredients like nuts and seeds are...

Nuts, seeds, and ingredients or products containing nuts or seeds are allowed. For Seed Oil Free Certification purposes, "seed oil" refers to liquid, edible oils refined or extracted from seeds. Therefore, while ingredients such as corn (e.g. popcorn), soybean or edamame, nuts, nut butters, seeds, and seed butters contain naturally occurring fats, these ingredients do not constitute seed oils and are not prohibited from certification.

Products with no added oils or fats are...

Food products with no added oils or refined fats and no Secondary Disqualifying Ingredients are eligible to qualify for Seed Oil Free Certification with no initial lab testing required, but are subject to finished goods testing during the certification period.

THE CERTIFICATION PROCESS IS...

From start to finish, the certification process takes under a month. To qualify for the trademarked Seed Oil Free Certified seal, foods must not contain any seed oil ingredients, including soybean, corn, canola, sunflower, peanut, grapeseed, safflower, rice bran, cottonseed, or flaxseed oil.

Here are the steps for companies applying to become Seed Oil Free Certified:

- First, <u>use our eligibility tool</u> to check your eligibility, or <u>schedule a discovery meeting</u> if you need help.
- As you begin the certification process, you'll receive a mutual nondisclosure agreement (MNDA). The MNDA protects sensitive details about your company including your annual revenue, suppliers, recipe cards, and purity testing results.
- After the MNDA, you'll proceed to filling out the webbased application where you'll provide full product details (request MNDA and application link here)
- We'll review your application, confirm your <u>pricing</u> based on your company's gross annual revenue and per-ingredient testing fees, and send you the licensing agreement.

- · After executing the licensing agreement, you'll be debited the licensing fee deposit as well as the itemized lab testing fee, \$400 per distinct oil or refined fat used.
- · You will then receive the sample kit and sample kit guidelines. The turnaround for lab results is approximately two weeks.
- · If your oil and refined fat ingredients are determined to be pure, you are now Seed Oil Free Certified.
- · If the oil or refined fat ingredients are determined to be impure or contain seed oils, we work with you to solve the issue and become eligible for certification, or you may request a refund of your licensing fee deposit, and we'll always keep the test results associated with your company confidential.
- · After you're fully certified, we offer a grace period for implementation. This means that for renewal purposes, your licensing term officially begins when you print the Seed Oil Free Certified seal on product packaging or menus.
- · When you're ready to announce that you're Seed Oil Free Certified, our team of experts can provide copywriting and graphic design assistance to tell the world your Seed Oil Free Story at no additional cost.

To get started, simply check your eligibility on our website or schedule a discovery meeting with our team of experts.

Learn More About the Seed Oil Free Certification Process

Ingredient purity testing is...

Ingredient purity testing is necessary to ensure that certified products are seed oil-free, and the Seed Oil Free Alliance is the first third-party certifying organization to require independent lab testing of added oils and fats used as ingredients in consumer packaged goods and restaurant foods.

The crime of fraudulently mixing inexpensive seed oils into olive oil or avocado oil is well-documented and can affect bottled cooking oils sold at retail and wholesale. According to the FDA, this food fraud is economically motivated and often evades detection.25

Researchers at UC Davis found that nearly 70%26 of US avocado oil they tested was impure and mixed with inexpensive seed oils. The Washington Post later revealed that many of the samples found to be adulterated were from major retailers.27

The current prevalence of olive oil adulteration in the US is unknown because the most recent peer-reviewed studies were conducted in 2015²⁸ and 2016²⁹, but authorities

believe olive oil fraud could be on the rise globally³⁰ due to recent shortages³¹ and price spikes³².

With oil adulteration fraud affecting many premum-quality oils, our pioneering adulteration testing ensures that certified products and offerings are truly Seed Oil Free.

All Seed Oil Free Certified products and offerings undergo regular testing of oil and refined fat ingredients, auditing, and anti-fraud measures to ensure purity and compliance. The cornerstone purity test is a gas chromatography fatty acid profile using the Association of Official Analytical Chemists (AOAC) Official Method 996.06 in an ISO 17025-accredited independent laboratory, with additional secondary testing methods as required to verify the purity of oils and fats.

FOOD SERVICE SEED OIL FREE CERTIFICATIONS ARE...

Food service Seed Oil Free Certification works similarly to consumer packaged goods (CPG) certification. However, while CPG certification is provided on a per-product basis, food service certification requires that the entire restaurant or establishment conforms to strict guidelines.

The universal requirement for Seed Oil Free Certified food service establishments is that no Harmful Seed Oils or Secondary Disqualifying Ingredients are used as ingredients or sub-ingredients in offerings or products made or sold in the establishment.







Seed Oil Free Certified Restaurant: Restaurants bearing the "Seed Oil Free Certified Restaurant" Seal on menus and in marketing materials do not use or sell any ingredients, offerings, or products containing Harmful Seed Oils or Low-concern Seed Oils and do not require any disclaimers.

Seed Oil Free Certified Cooking Oil: Restaurants bearing the "Seed Oil Free Certified Cooking Oil" seal on menus and in marketing materials use exclusively allowed (non-seed) oils as cooking oils, which are tested and audited, but may use Low-concern Seed Oils in non-cooking-oil applications (e.g. toasted sesame oil as a finishing ingredient, or high-oleic sunflower oil as a salad dressing ingredient). This version of the seal functions as a disclaimer, and additional menu disclaimers for items containing Low-concern Seed Oil ingredients are not required. Low-concern Seed Oils may not be used as cooking oils.

Seed Oil Free Certified: Certified restaurants may use the unadorned or with-website versions of the "Seed Oil Free Certified" seal on their menus and in marketing materials, but must provide clear, visible, detailed disclaimers on menus indicating any offerings or products that contain Low-concern Seed Oils as ingredients. Low-concern Seed Oils may not be used as cooking oils.

THE SEED OIL FREE ALLIANCE IS...

The Seed Oil Free Alliance is here to bridge the gap between health-conscious consumers who seek to avoid harmful seed oils and innovative companies offering seed oil-free food products.

Today, there's a growing movement to reduce or eliminate seed oil consumption, but going Seed Oil Free is challenging for consumers and companies alike. Our third-party certification serves as a platform for conscientious food companies to communicate their commitment to public health, product quality, and ingredient integrity.

Learn About the Seed Oil Free Alliance

Meet Our Team

RESOURCES

Check Your Eligibility or Apply for Seed Oil Free Certification

View Current Pricing

Learn More About the Seed Oil Free Certification Process

Contact the Seed Oil Free Alliance

To request the full Standards, email: info@seedoilfreecertified.com

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