

*Navigating the Transition
to Fully Hydrogenated Oils:*

LABELING & CONSUMER PERCEPTION

QUALISOY[®]
INNOVATE. COLLABORATE. ADVANCE.



Fully hydrogenated oils are a key component in reformulation, offering comparable functionality in bakery and other high-stability applications.¹ Food companies can fully embrace this ingredient. Research shows that despite the clean label trend, consumers are largely not avoiding fully hydrogenated oils on ingredient labels.³



FULLY HYDROGENATED OILS

Fully hydrogenated oils are individual fats and oils, or blends of fats and oils, that are hydrogenated to complete or near complete saturation, sometimes using interesterification to complete the blending process. The full hydrogenation process strives to convert all unsaturated fatty acids, and in the process, remove trans fatty acids; thus, fully hydrogenated oils are allowed by the U.S. Food and Drug Administration (FDA) for use in edible products.

“Shortenings made with fully hydrogenated oil are very useful replacement ingredients for partially hydrogenated oils in baking and frying applications; they deliver necessary functionality and contribute virtually no trans fat.”

– **Robert Collette, President**
Institute of Shortening and Edible Oils



Fully hydrogenated oils can be used as donut frying shortening and in icings, bakery dough, pie crusts and more. The oils can be used in products alone, in blends with liquid oils, and in interesterified oils.



CONSUMERS ARE NOT AVOIDING FULLY HYDROGENATED OILS

In response to food companies' concerns about consumer demand for clean labels and ingredient transparency, QUALISOY conducted quantitative and qualitative studies evaluating consumer reactions to the term "fully hydrogenated" as well as several alternative names for fully hydrogenated oils.

Nutrition Facts

Serving Size 1 cookie (34g)

Amount Per Serving

Calories 53

% Daily Value*

Total Fat 2g 5%

Saturated Fat 1g 5%

Sodium 53mg 0%

Total Carbohydrate 8g 11%

Dietary Fiber 0g 0%

Protein 0g

Vitamin A 0% Calcium 1%

Vitamin C 0% Iron 3%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Ingredients:

Fully Hydrogenated Soybean and/or Palm Oil
Unbleached Enriched Flour (Wheat Flour, Niacin, Reduced Iron, Thiamine Mononitrate (Vitamin B1), Riboflavin (Vitamin B2), Folic Acid), Cocoa (Processed with Alkali), High Fructose Corn Syrup, Leavening (Baking Soda and/or Calcium Phosphate), Cornstarch, Salt, Soy Lecithin, Vanillin - an Artificial Flavor, Chocolate.

Ingredients:

Fully Hydrogenated Soybean and/or Palm Oil, Sugar, Unbleached Enriched Flour, Wheat Flour, Niacin, Reduced Iron, Thiamine Mononitrate (Vitamin B1), Riboflavin (Vitamin B2), Folic Acid), Cocoa (Processed with Alkali), High Fructose Corn Syrup, Leavening (Baking Soda and/or Calcium Phosphate), Cornstarch, Salt, Soy Lecithin, Vanillin - an Artificial Flavor, Chocolate.



Research indicates consumers are not avoiding ingredient labels with fully hydrogenated oils, and companies do not need to be concerned about consumer perception of these ingredients.³



Most consumers in the study had seen fully hydrogenated and hydrogenated ingredients on labels, but less than 40 percent inaccurately associated the terms with trans fat.

In fact, focus groups showed that most consumers do not actually read the ingredients statement unless they are actively trying to avoid a particular ingredient, usually because of allergy concerns. Of those who do read the label, only four percent are seeking oil related information, such as hydrogenated oils.³

When making purchase decisions, consumers depend on nutrition labels more than the ingredients statement, and reported similar favorability reactions for the terms “hydrogenated” and “fully hydrogenated.”³



There is no indication that the descriptive term used to define the type of oil used in a product will impact consumer purchase behavior, either positively or negatively.³

HEALTH IMPACT OF FULLY HYDROGENATED OILS

The process of hydrogenation increases the amount of saturated fat, which makes the oil solid at room temperature. In the case of fully hydrogenated vegetable oils, most of that converted saturated fat is stearic fatty acid.



According to a clinical study conducted by the United States Department of Agriculture (USDA), high oleic soybean oil and high oleic soybean oil blends (with up to 20 percent fully hydrogenated soybean oil) provide food functionality for solid and liquid oil applications, and maintain or improve lipid and lipoprotein profiles in humans compared to alternative functional fats.²

“Some fully hydrogenated oils and blends provide food functionality and improved shelf life while supporting healthy lipoprotein profiles.”¹⁻²

–Dr. David Baer, Research Leader
USDA, ARS, Beltsville Human Nutrition Research Center



FULLY HYDROGENATED OILS AS PARTIALLY HYDROGENATED OIL (PHO) REPLACEMENTS

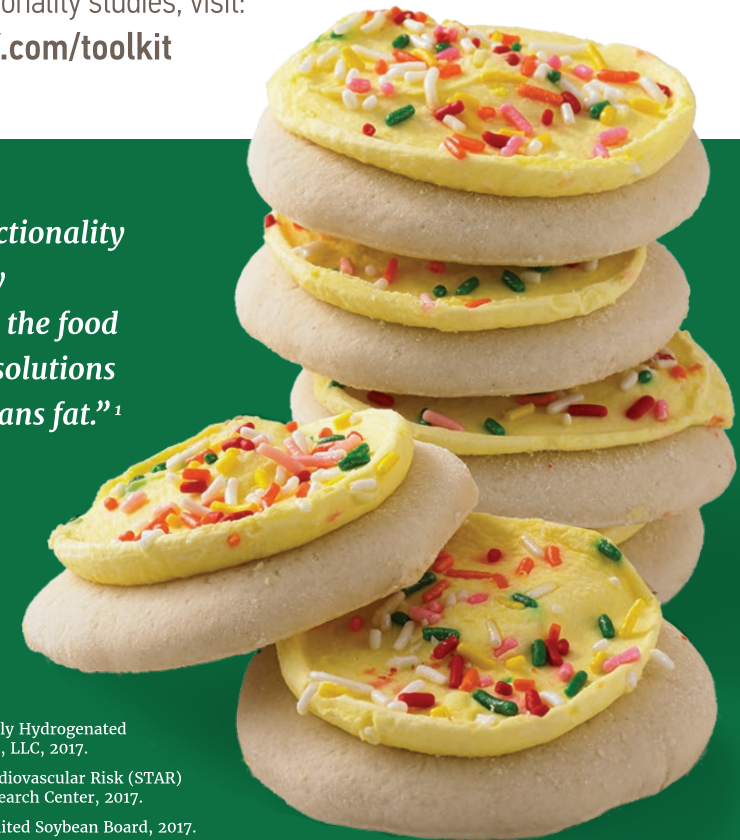
Recent functionality tests conducted by QUALISOY found that shortenings made with a blend of liquid and fully hydrogenated oils make suitable replacements for partially hydrogenated oils in baking and frying applications.¹



For full results of baking and frying functionality studies, visit:
QUALISOY.com/toolkit

“Based on extensive functionality tests, it’s clear that fully hydrogenated oils offer the food industry functional oil solutions without contributing trans fat.”¹

–Frank Flider,
QUALISOY oils expert



1. A Bakery Application Review of Partially Hydrogenated Shortening Alternatives. Stratas Foods, LLC, 2017.
2. Baer, David J. Soybean Oil Trial on Cardiovascular Risk (STAR) Study. Beltsville Human Nutrition Research Center, 2017.
3. Fully Hydrogenated Naming Study. United Soybean Board, 2017.



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About QUALISOY

QUALISOY is an independent, third-party collaboration among the soybean industry that serves as a resource for the latest enhanced soybean oils. QUALISOY educates the foodservice and food manufacturing industries about the benefits of U.S.-grown soy solutions such as soy-based, high-stability frying oils.

About the Institute of Shortening and Edible Oils (ISEO)

ISEO is a trade association representing the refiners of edible fats and oils in the United States. Our members represent the vast majority of the edible fats and oils produced domestically that are used in baking and frying fats (shortening), cooking and salad oils, margarines, spreads, confections and toppings, and ingredients in a wide variety of foods.



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