



## October 30, 2014 Technical Session Trans Fat / PHO Replacement

IFT Ideation Center  
525 W. Van Buren, Suite 1000  
Chicago, IL

Time: 7:00 AM – 10:00 AM

### ***Palm Oil as a Versatile Replacement for PHVOs***

In light of recent FDA ruling on Trans Fats and the elimination of Partially Hydrogenated Oils (PHO), oil experts will speak to the reach of the new ruling, its impact on Quality Assurance and Product Development. Alternatives to PHO, such as Palm Oil, also to be discussed in-depth.

In Nov 2013, the FDA announced its intention to revoke GRAS status for Partially Hydrogenated Oils (PHO), effectively banning its use in foods in the USA. It is therefore essential to identify and apply functional and versatile non-hydrogenated alternatives to all foods before a ban is in force. Natural palm oil has recently emerged as the most versatile and cost effective solution to PHO's and this presentation will describe how it can be used as a PHO alternative in almost any food application.

Due to the health risks associated with Trans Fats, the FDA is currently seeking to eliminate the universal use of Partially Hydrogenated Oils (PHOs) in food products and ingredients.

What is trans fat? Trans fat or trans fatty acids are a type of unsaturated fat that occur naturally at low concentrations in fats and oils. High concentrations of trans fat occurs when the oils undergo the process of hydrogenation, which converts the unsaturated fats into saturated fats. A by-product of this process is the alteration of the unsaturated fats into the trans-fat configuration. When the process is stopped before all of the fat has been converted to saturated fat, it is called partial hydrogenation and the product is referred to as "Partially Hydrogenated".

For over seventy years, the PHO products were commonly considered as Generally Recognized As Safe (GRAS) by the industry have been formulated into numerous food products, from baked goods to snacks and prepared foods, as well as other food ingredients.

Concern over trans fats has risen in the past few years due to the health effects, such as coronary heart disease (CHD) associated with increased trans fats consumed in the typical



American diet. This moved the FDA to mandate labeling of trans fats on the nutrition panel of all food products sold within the United States in 2006.

In continuing with this trend, in late 2013, the FDA announced a preliminary determination of the withdrawal of the GRAS status for PHO, due to the elevated content of trans fatty acids. By removal of the PHO from GRAS, the PHO would need approval for use in food products by the FDA and restrictions and/or limitations of use would be likely.

A drop-in solution may not be possible, replacement of PHOs is possible with proper participation between the qualified vegetable oil supplier and the customer.

What are some options for the industry to investigate?

### **Speakers**

Rick Cummisford, QA Director with Columbus Vegetable Oils



Dr. Gerald McNeill, Ph.D., is the VP of Research and Development, North America, for IOI Loders Croklaan. In this role, Dr. McNeill leads the company's North American research teams in guiding the development of new solutions for the fats and oils industry.

With a Ph.D. in biochemistry and over 20 years of experience in fats and oils, Dr. McNeill provides strong technical insight and knowledge to the increased awareness of Palm Oil and its benefits for the food industry – specifically to replace partially hydrogenated vegetable oil.