U.S. Butter and Milkfat

Blending Tradition with Innovation

U.S. dairy manufacturers offer a variety of traditional butter and milkfat applications and continue to innovate to meet the evolving needs of global customers. Whether for foodservice applications or food manufacturing processes, discover why the United States is an attractive, quality-driven option in the dairy fat supply chain.

U.S. Butter and Milkfat Industry

Butter's simple goodness has passed the test of time and emerged as a favorite for those with a love for flavor and functionality. Butter was once made by hand in small churns, but today U.S. creameries are highly controlled and sophisticated operations emphasizing quality and consistency. From East Coast to West Coast, manufacturers also continue to provide research and innovation for new and exciting ways to expand uses for U.S. dairy fats.

With a consistent and ample fresh milk supply 365 days a year, the United States is well positioned to expand production to meet ever-increasing global demand for dairy fats. The United States produces over 800,000 metric tons of butter annually and has expanded its annual butter output by 50% over the last decade.

This added capacity is increasingly destined for countries beyond U.S. borders with international customer interest on the rise regarding the attractive qualities of U.S. dairy fats. U.S. butter and milkfat manufacturers today are focused on customer needs and ready and eager to be partners with companies around the world. This includes flexibility to adapt to different product requirements and process needs as well as co-creating or customizing new products.

DID YOU KNOW

- The United States is the second largest butter producing country in the world behind India which predominantly produces ghee.
- The United States has expanded annual butter output by 50% over the last decade.
- In addition to butter, the United States provides a variety of different butter and milkfat products such as compound butter, anhydrous milkfat, butteroil and dairy blends.

Types of U.S. Butter and Milkfat

U.S. manufacturers provide a variety of different butter and milkfat products processed under strict guidelines to meet stringent demand of global customers. While butter products occupy the largest share of U.S. dairy fat production currently, the United States also produces anhydrous milkfat (AMF), butteroil and dairy blends with further expansion capacity to meet global customers' needs. The following is a brief summary of the various products produced in the United States.

BUTTER

The traditional and versatile favorite comes in several varieties: salted, unsalted, cultured (European style), whipped and light butter. With no more than 40% milkfat, light butter has fewer calories than regular butter per serving. Whipped butter has approximately 45% less fat than regular butter, other butter products can have a butterfat range from 80% to 85%. U.S. manufacturers produce butter at a minimum 80% butterfat, by law, while European butters tend to be in the 82% to 85% butterfat range. It is important to note, U.S. manufacturers have the ability to run 80% to 85% butterfat depending on individual customers' needs and requirements.

WHAT INFLUENCES BUTTER COLOR?

Variations in the color of butter from region to region is based upon what cows were fed during the milk production process. Butter produced in the United States is light in color, has a delicate sweet flavor, creamy texture, and a fine, highly pleasing aroma. U.S. butter is produced from high quality, fresh sweet cream. Higher levels of carotene found in milk and cream from grass-fed cows in other areas of the world result in a butter more yellow in appearance.

FIG. 1: COMPOSITION OF BUTTER INGREDIENTS

BUTTER PRODUCT	MOISTURE	FAT	PROTEIN	LACTOSE	ASH
Butter	16.0	>80.0	0.85	0.06	2.11
Anhydrous Milkfat	<0.1	>99.8	0.0	0.0	0.0
Butteroil	<0.2	>99.5	0.3	0.0	0.0

COMPOUND BUTTER

Compound butters are generally simple and delicious creations that blend traditional butter with flavorings. Some of the more common ingredients include garlic, herbs and fruits. Other compound butters might include mushrooms, specialty cheeses or a chef's own creative idea. Whether used as a spread, an ingredient in a sauce, a topping or mixed with rice or pasta, just a small amount can transform a dining experience. Leading chefs can create a gourmet compound butter that meets the tastes of local users and inspires countless creations to please the consumers' palate. Try your favorite U.S. compound butter to add a new dimension to any cooking experience.

ANHYDROUS MILKFAT AND BUTTEROIL

AMF and butteroil provide the desired flavor of dairy to products while avoiding the issue of shelf life because of the stability of the product at room temperature. Both have a shelf life of at least one year and are used in a variety of applications including sauces, processed cheese, frozen desserts and bakery goods.

Anhydrous milkfat (AMF) is made by removing practically all the moisture and nonfat solids from pasteurized 40% milkfat cream. The resulting 70% to 80% milkfat cream is then processed through a specialized phase inversion unit or separator. This milkfat is further concentrated, with residual moisture removed by vacuum-drying. Anhydrous milkfat contains no less than 99.8% milkfat and not more than 0.1% moisture.

Butteroil is made by removing practically all the moisture and nonfat solids from butter. It is produced by gently heating butter, disrupting the butter emulsion. The milkfat is then concentrated in separators and vacuum-dried to remove residual moisture. Sometimes butteroil is washed with water prior to the final drying stage to remove trace impurities. Butteroil contains about 99.5% milkfat and not more than 0.2% moisture.

DAIRY BLENDS

Dairy blends are mixtures of dairy fats and specific ingredients that support a desired production process application. Sugar, dextrin and cocoa powder are just a few of the more common ingredients. Pre-blending can save time and money for customers who do not wish to procure multiple ingredients or worry about the risks associated with their own in-house blending. U.S. dairy processors work with leading food manufacturers around the globe to create, develop and supply U.S. dairy fat based blends.

Source: Midwest Dairy

Source: American Butter Institute

Butter and Heart Health

The irresistibly sweet taste and creamy texture of "Made in USA" butter provides global customers with a quality-driven product that enhances flavor in a multitude of applications, whether for foodservice channels, industrial uses or home cooking. Beyond this well-known great taste, the good news is that recent science has taken a closer look at the saturated fats found in dairy foods like butter, and found that not all saturated fatty acids have negative effects on heart health.[2]

In fact, emerging research suggests that certain fatty acids found in dairy actually result in a reduced risk for heart disease.[3] Butter also does not contain the types of trans fats that are found in margarines or other hydrogenated fat products, which decrease levels of good (HDL) cholesterol and increase levels of bad (LDL) cholesterol.[4] As research continues to build on the physiological impact of specific fatty acids, we may learn that fat from dairy can be included in a healthy diet.

Quality First

The U.S. butter industry has developed stringent standards when it comes to food quality and safety. Beyond self-imposed quality initiatives, the United States Department of Agriculture (USDA) and the U.S. Food and Drug Administration (FDA) work closely with the U.S. butter industry to ensure safe and consistent guidelines are maintained beginning on the farm and followed through to the consumer. The phrase "quality first" describes U.S. butter products that enter the global marketplace.

Industry Innovation

The United States recognizes the global marketplace is changing and understands the need to supply a broad range of butter products that are economical, nutritious and meet the high standards customers around the world seek. New and expanding R&D facilities across the United States are eager to provide international customers with a partner in the innovation process. Be on the cutting edge by fractionating fats for industrial use, formulating unique dairy blends for ingredient use or developing a special compound butter at the foodservice level. Team up with a U.S. manufacturer to make a new idea a reality. ■

[2] de Oliveira Otto MC, Mozaffarian D, Kromhout D, Bertoni AG, Sibley CT, Jacobs DR Jr, Nettleton JA. Dietary intake of saturated fat by food source and incident cardiovascular disease: the Multi-Ethnic Study of Atherosclerosis. *Am J Clin Nutr.* 2012 Aug;96(2):397-404. doi: 10.3945/ajcn.112.037770. Epub 2012 Jul 3.

[3] de Oliveira Otto MC, Nettleton JA, Lemaitre RN, Steffen LM, Kromhout D, Rich SS, Tsai MY, Jacobs DR, Mozaffarian D. Biomarkers of dairy fatty acids and risk of cardiovascular disease in the Multi-ethnic Study of Atherosclerosis. *J Am Heart Assoc.* 2013 Jul 18;2(4):e000092. doi: 10.1161/JAHA.113.000092.

[4] Jakobsen MU, Overvad K, Dyerberg J, Heitmann BL. Intake of ruminant trans fatty acids and risk of coronary heart disease. *Int J Epidemiol.* 2008 Feb;37(1):173-82. Epub 2007 Dec 12.

GET IN TOUCH

Looking to buy butter?

While USDEC does not manufacture or sell dairy products, we proudly support the people who do. Search the **U.S. Dairy Supplier Directory** at **ThinkUSAdairy.org.**

To learn more and find a USDEC representative near you, go to **ThinkUSAdairy.org/global-presence**.