

Buttermilk Powder Ingredients

Buttermilk is a cultured product made from pasteurized or ultrapasteurized lowfat or skim milk with nonfat dry milk solids added. Buttermilk powder is obtained by removing water from liquid buttermilk that was derived by churning butter and pasteurized prior to condensing. Dry buttermilk is light cream in color with a clean neutral flavor. The following chart provides a typical compositional breakdown of buttermilk powder.

Typical Composition of Buttermilk Powder (%)

Milk Product	Moisture	Fat	Protein	Lactose	Ash
Buttermilk Powder	3.0-3.5	5.5-6.0	32.0-34.5	49.5-50.5	7.5-8.0

Beneficial Features

Using buttermilk powder instead of fluid buttermilk makes transportation and storage easy. Additionally, removing moisture from buttermilk inhibits microbial growth and delivers a shelf life of six to nine months.

Functionality

Beyond adding concentrated calcium, protein and other important nutrients, buttermilk powder brings several desirable properties to food formulations:

Browning/Color—Appealing for applications in baked goods or sauces, dairy proteins react with lactose and other reducing sugars during baking or cooking to produce a desirable browning effect.

Emulsification—Proteins in dry buttermilk act as oil/water interfaces, aiding in the formulation and stabilization of fat emulsions. These properties are particularly useful in soups, baked goods, beverages and salad dressings.

Flavor—Buttermilk powder can be used to enhance the dairy flavor of foods, contributing flavor notes from sweet to sour.

Foaming—Dry buttermilk helps diffuse protein to an air/water interface, reducing surface tension and partially unfolding the protein. Encapsulated air bubbles form a stable and elastic film useful for creating desserts and cakes.

Water binding—The water-holding capacity of buttermilk proteins is used to create desired textures in viscous food products like soups and custards. In bread dough, this binding capacity helps prolong shelf life.



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