

Dry Whey Standard

Product Definition

Whey is the liquid substance obtained by separating the coagulum from milk, cream, or skim milk in cheese making. Dry Whey is the substance obtained by the removal of water from whey, while leaving all other constituents in the same relative proportions as in whey. Dry Sweet Whey shall not have a greater than 0.16% titratable acidity on a reconstituted basis. Dry Acid Whey shall have greater than 0.35% titratable acidity on a reconstituted basis. The acidity of whey, sweet or acid, may be adjusted by the addition of safe and suitable pH-adjusting ingredients. Dry Whey for human consumption complies with all provisions of the U.S. Federal Food, Drug, and Cosmetic Act. Preservatives are not permitted.

Composition/Specifications for Extra Grade Dry Whey

Classifications	Fat	Moisture	Titratable Acidity*	Scorched Particles
Sweet-type Dry Whey	Max. 1.5%	Max. 5.0%	Max. 0.16%	Max. 15.0 mg
Acid-type Dry Whey	Max. 1.5%	Max. 5.0%	Min. 0.35%	Max. 15.0 mg

*Acidity is not a basis for grade determination; rather, it is used to classify the source/origin of whey.

Other Characteristics

Color & Appearance Has a uniform color, off white to cream and is free flowing, free from lumps that do not break up under slight pressure, and is practically free from visible dark particles.

Flavor Has a normal whey flavor, free from undesirable flavors, but may possess the following flavors to a slight degree: bitter, fermented, storage, and utensil; and the following to a definite degree: feed and weedy.

Microbiological Analysis

Standard Plate Count ≤ 30,000 cfu/g
Coliform ≤ 10 cfu/g

Methods of Analysis (see pages _____)

Criteria	Reference Method
Protein	AOAC 991.20 (N x 6.38)
Fat	AOAC 989.05
Total Moisture	AOAC 925.45

Optional Tests

Other tests that may be made on dry whey products (not mandatory for grade designation, but, if determined, must comply as indicated) are:

Protein not less than 11%

Alkalinity of Ash not more than 225 ml
(Sweet-type dry whey only) of 0.1 N HCl/100g

When it is determined that dry whey (1) fails to meet the requirements of Extra Grade*; (2) fails to meet the requirements of any optional test, when such test has been made*; or (3) has been produced in a plant found on inspection to be using unsatisfactory manufacturing practices, equipment, or facilities, or to be operating under unsanitary plant conditions, it shall not be assigned a grade.

*When tested in accordance with standardized methods of analysis contained herein (see pages 28 - 46).

Additional ADPI Specifications

Salmonella negative
 Listeria negative
 Coagulase positive
 Staphylococci <10 cfu/g
 Yeast & Mold ≤ 100 cfu/g

Codex Specifications for Dry Whey

Classifications	Protein	Lactose	Ash	Moisture	Titrateable Acidity
Sweet-type Dry Whey	Min. 11%	Min. 65%	Max. 8.5%	Max. 5.0%	Max. 0.16% Min. pH 6.0
Acid-type Dry Whey	Min. 7%	N.A.	Max. 15.0%	Max. 4.5%	Min. 0.35% Max. pH 5.1

Product Labeling

Product should be labeled as: “Dry Sweet Whey” or “Dry Acid Whey” or “Dry Whey ____% titratable acidity” (for dry whey over 0.16% but below 0.35% titratable acidity on a reconstituted basis; the blank designating the actual acidity).

Product Applications and Functionality

Dry sweet whey: bakery products, process cheese products, frozen desserts, sauces, meat emulsions, salad dressings, beverages, confections, gravies, soups, meat products, snack foods

Dry acid whey: bakery products, prepared dry mixes, dry blends, salad dressings, snack foods, frozen desserts (sherbets)

Storage & Shipping

Product should be stored and shipped in a cool, dry environment with temperatures below 80°F and relative humidities below 65%. Stocks should be rotated and utilized within 6 mo - 1 yr.

Packaging

Multiwall kraft bags with polyethylene inner liner or other approved closed container – i.e., “tote bins,” etc.