



**United States
Department of
Agriculture**

**Agricultural
Marketing
Service**

**Dairy
Division**

United States Standards for Grades of Whipped Butter

Effective February 9, 1994

United States Standards for Whipped Butter¹

Definitions

§ 58.2425 *Whipped butter.*

Whipped butter is the food product made by the uniform incorporation of air or inert gas into butter.

§ 58.2426 *Butter.*

The food product usually known as butter, and which is made exclusively from milk or cream, or both, with or without common salt, with or without additional coloring matter, and containing not less than 80 percent by weight of milkfat, all tolerances having been allowed for.

§ 58.2427 *Cream.*

The term *cream* when used in this subpart G means cream separated from milk produced by healthy cows. The cream shall be pasteurized at a temperature of not less than 165°F and held continuously in a vat at such temperature for not less than 30 minutes; or pasteurized at a temperature of not less than 185°F for not less than 15 seconds; or pasteurized by other approved methods giving equivalent results.

U.S. Grades

§ 58.2428 *Nomenclature of U.S. grades.*

The nomenclature of U.S. grades is as follows:

- (a) U.S. Grade AA.
- (b) U.S. Grade A.

§ 58.2429 *Basis for determination of U.S. grade.*

The U.S. grade of whipped butter is determined on the basis of classifying first the flavor characteristics and then the characteristics in body, color, and salt of a representative sample. Flavor is the basic quality factor in grading whipped butter and is determined organoleptically by

¹ Compliance with these standards does not excuse failure to comply with provisions of the Federal Food, Drug and Cosmetic Act.

smell and taste. The flavor characteristic and intensity is identified and rated according to the applicable classification contained in Table I in § 58.2430. When more than one flavor characteristic is discernible in a sample of whipped butter, the flavor classification of the sample shall be established on the basis of the flavor that carries the lowest rating. Body, color, and salt characteristics are then noted and disratings are made in accordance with the established classification in Table II in § 58.2430. The final U.S. grade for the sample is then established in accordance with the flavor classification, subject to permitted disratings for body, color, and salt as outlined in § 58.2431.

§ 58.2430 *Specifications for U.S. grades.*

The specifications for the U.S. grades of whipped butter are as follows:

(a) *U.S. Grade AA.* U.S. Grade AA whipped butter conforms to the following: Shall possess a fine and highly pleasing butter flavor. Whipped butter may also have a lactic culture flavor. May possess a slight feed, or a definite cooked flavor. The permitted disratings in body, color, and salt characteristics are limited to one-half (½). For detailed specifications and classification of flavor characteristics, see Table I of this section. For body, color, and salt disratings, see Table II of this section.

(b) *U.S. Grade A.* U.S. Grade A whipped butter conforms to the following: Shall possess a pleasing and desirable butter flavor. Whipped butter may also have a lactic culture flavor. May possess to a slight degree the following flavors: acid, aged, bitter, coarse, flat, smothered, and storage. May possess a definite feed flavor. The permitted disratings in body, color, and salt characteristics are limited to one-half (½). For detailed specifications and classification of flavor characteristics, see Table I of this section. For body, color, and salt disratings, see Table II of this section.

(c) *General.* Whipped butter of all U.S. grades shall be free from foreign materials and visible mold. When total disratings exceed the permitted amount, the final U.S. grade shall be lowered one grade level for each additional one-half (½) disrating.

Table I.--Classification of Flavor With Corresponding U.S. Grade

Flavor characteristics ²	U.S. grade designation	
	AA	A
Acid	-	S
Aged	-	S
Bitter	-	S
Coarse	-	S
Cooked	D	
Feed	S	D
Flat	-	S
Smothered	-	S
Storage	-	S

(-)--Not Permitted. S--Slight. D--Definite.

²When more than one flavor is discernible in a sample of whipped butter, the flavor classification of the sample shall be established on the basis of the flavor that carries the lowest rating.

Table II.--Characteristics and Disratings in Body, Color and Salt

Characteristics	Disratings	
	Slight	Definite
Body:		
Free Moisture	½	1
Mealy or grainy	½	1
Color:		
Color specks	1	1½
Mottled	½	1
Wavy	½	1
Salt:		
Gritty	1	1½
Sharp	1	1½

§ 58.2431 *Relationship of U.S. grade of whipped butter to the flavor classifications as affected by disratings in body, color, and salt characteristics.*

When the disratings for body, color, and salt exceed the permitted amount of (1/2) for any flavor classification, the final U.S. grade shall be lowered accordingly:

TABLE III

Flavor classification	Total disratings	U.S. grade
AA	1/2	AA
AA	1	A
AA	1 1/2	(*)
A	1/2	A
A	1	(*)

(*)--No U.S. grade assigned.

§ 58.2432 *Optional tests.*

(a) There are optional tests (not mandatory for grade designation) that may be made on whipped butter that can be requested by the buyer or seller. If requested, the product must comply with the microbiological and keeping-quality specifications as follows:

- Proteolytic count -- not more than 50 per gram
- Yeast and mold count -- not more than 10 per gram
- Coliform count -- not more than 10 per gram
- Keeping-quality test -- satisfactory after 7 days at 70°F.

(b) All required tests, and optional tests when specified, shall be performed in accordance with the test methods identified in § 58.2434.

§ 58.2433 *U.S. grade not assignable.*

Whipped butter shall not be assigned a U.S. grade for one or more of the following reasons:

- (a) The butter fails to meet or exceed the requirements for U.S. Grade A.
- (b) The butter, when tested, does not comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or the minimum milkfat requirements of 80.0 percent.

(c) The butter is produced in a plant that is rated ineligible for USDA grading service or is not USDA-approved.

§ 58.2434 *Test methods.*

Testing methods contained in the latest edition of the “Standard Methods for the Examination of Dairy Products” or the “Official Methods of Analysis of the Association of Official Analytical Chemists” are used to determine bacterial estimates and milkfat content.

Explanation of Terms

§ 58.2435 *Explanation of terms.*

(a) With respect to flavor intensity and characteristics:

- (1) *Slight.* Detected only upon critical examination.
- (2) *Definite.* Not intense but detectable.
- (3) *Acid.* Lacks a delicate flavor or aroma and is associated with an acid condition but there is no indication of sourness.
- (4) *Aged.* Characterized by lack of freshness.
- (5) *Bitter.* Astringent, similar to taste of quinine and produces a puckery sensation.
- (6) *Coarse.* Lacks a fine, delicate, smooth flavor.
- (7) *Cooked.* Smooth, nutty-like characteristic resembling a custard flavor.
- (8) *Feed.* Aromatic flavor characteristic of the feed eaten by cows.
- (9) *Flat.* Lacks natural butter flavor.
- (10) *Smothered.* Suggestive of improperly cooked cream.
- (11) *Storage.* Characterized by a lack of freshness and more intensified than “aged” flavor.

(b) With respect to body:

- (1) *Free moisture.* “Free moisture” is present when beads of moisture are visible on the surface of the sample. The intensity is described as “slight” when the droplets or beads of moisture are barely visible, few in number, and about the size of a pinhead; and “definite” when the moisture droplets are clearly visible, more numerous, and are somewhat larger in size.
- (2) *Mealy or grainy.* A “mealy” or “grainy” condition imparts a granular consistency when the whipped butter is melted on the tongue. The intensity is described as “slight” when the mealiness or graininess is barely detectable; and “definite” when the mealiness or graininess is clearly detectable.

(c) With respect to color:

- (1) *Mottled.* “Mottled” appears as a dappled condition with spots of lighter and deeper shades of yellow. The intensity is described as “slight” when the small spots of different shades of yellow, irregular in shape, are barely discernible on the sample of whipped butter; and “definite” when the mottles are more clearly discernible.

(2) *Color specks*. “Specks” usually appear in whipped butter as small white or yellow spots. The intensity is described as “slight” when the spots are few in number; and “definite” when they are noticeable in larger numbers.

(3) *Wavy*. “Wavy” color in whipped butter is an unevenness in the color that appears as waves of different shades of yellow. The intensity is described as “slight” when the waves are barely discernible; and “definite” when they are readily noticeable.

(d) With respect to salt:

(1) *Gritty*. A “gritty” salt condition imparts a sand-like feeling on the tongue due to grains of undissolved salt. The intensity is described as “slight” when only a few grains of undissolved salt are detected; and “definite” when the condition is more readily noticeable.

(2) *Sharp*. “Sharp” salt is characterized by taste sensations suggestive of salt. The intensity is described as “slight” when the salt taste predominates in flavor; and “definite” when the taste distinctly predominates in flavor.