

CHEESE

Cheese is the product resulting from the coagulation of the milk protein, casein, by suitable enzymes and/or acid-producing bacteria to produce a curd which is separated from the whey and can be in the ripened or unripened form. Examples are

Cheddar cheese: A firm bodied cheese produced by subjecting milk, nonfat milk, or cream to the action of a lactic acid-producing bacteria culture and clotting enzyme (rennet). It contains not more than 39% moisture by weight and not less than 50% milk fat by weight of the solids.

Cottage cheese: A soft, uncured cheese prepared by mixing cottage cheese dry curd with a creaming mixture. It contains not more than 80% moisture and not less than 4% milk fat by weight of the finished food.

Cream Cheese: The soft, uncured cheese made from pasteurized dairy ingredients containing not less than 33% milk fat by weight of the finished food and not more than 55% moisture by weight.

CREAM PRODUCTS

Cream is the product obtained from milk by increasing the fat content by separation or by blending a high fat cream with milk to obtain a desired fat content. There are several types of cream products which differ principally in their fat content.

Half-and-half: A mixture of milk and cream which contains between 10.5 and 18.0% milk fat.

Light cream: Cream which contains between 18 and 30% milk fat.

Light whipping cream: Cream which contains between 30 and 36% milk fat.

Heavy cream: Cream which contains not less than 36% milk fat.

Imitation cream: A cream product using vegetable fat to replace the milk fat portion.

Sour cream, plain is the product containing not less than 18% fat produced by the acidification (souring) by lactic acid-producing bacteria to obtain a titratable acidity, calculated as lactic acid, of not less than 0.5%.

Acidified sour cream, plain is the product containing not less than 18% fat produced by the acidification (souring) by suitable acidulants with or without lactic acid-producing bacteria to obtain a titratable acidity, calculated as lactic acid, of not less than 0.5%.

Sour cream dressing is the product resembling sour cream, containing not less than 18% milk fat and having a titratable acidity, calculated as lactic acid, of not less than 0.5%, but does not comply with their standard of identity in that other dairy ingredients have been substituted for cream and/or milk solids.

Example Sour Cream (19% fat) Formulation

	<i>Percent</i>
40% fat cream	43.0
3.5% fat milk	52.7
Milk solids nonfat	4.1
Gum stabilizer	0.2

Acidification by lactic acid-producing bacteria and/or acidulant.

Example Imitation Sour Cream Dressing Formulation

	<i>Percent</i>
Water	71.2
Vegetable fat	18.0
Milk solids nonfat	10.0
Emulsifier	0.5
Stabilizer	0.3

DRESSINGS

Mayonnaise: An emulsified oil in water semisolid food, containing vegetable oil, acidulant, egg yolk, and other ingredients, which contains not less than 65% by weight of vegetable oil and not less than 2.5% by weight acidity, calculated as acetic acid.

Example Composition

	<i>Percent</i>
Vegetable oil	80.0
Water	6.9
Vinegar, white (100 grain)	2.4
Egg yolk	7.0
Salt	1.5
Sugar	
Mustard	
Monosodium glutamate	
Flavoring	
EDTA	
	100.00

Salad dressing: An emulsified semisolid food prepared from vegetable oil, acidulant, egg yolk, starch, and other ingredients, which contains not less than 30% by weight of vegetable oil and not less than the equivalent of 4% egg yolk solids by weight of liquid egg yolks.

Example Composition

	<i>Percent</i>
Vegetable oil	40.0
Water	30.6
Vinegar, white (100 grain)	10.0
Sugar	10.0
Egg yolks	4.0
Starch	2.5
Salt	2.0
Mustard	0.5
Xanthan gum	0.3
	100.0

French dressing: The separating liquid food or emulsified viscous fluid food prepared from vegetable oils, acidulants, and other ingredients. It contains not less than 35% by weight of vegetable oil.

<i>Example Composition</i>	<i>Percent</i>
Vegetable oil	38.00
Water	34.85
Sugar	11.60
Vinegar, white (100 grain)	9.00
Salt	3.60
Paprika	1.40
Mustard	1.30
Xanthan gum	0.25
	100.00

FROZEN DESSERTS

Frozen desserts are food products prepared by freezing, while stirring, pasteurized mixes composed of ingredients varying according to the type of frozen dessert.

Ice cream contains a minimum of 10% by weight of milk fat, 6% milk solids nonfat, and 20% total milk solids except when a bulky ingredient such as chocolate, fruit, nuts are used which allows for a reduction but to not less than 8% milk fat and 16% total milk solids; overrun 90–100%. One gallon contains not less than 1.6 lb of total solids and weighs not less than 4.5 lb to the gallon.

Ice milk contains more than 2% but not more than 7% milk fat and not less than 11% total milk solids. One gallon contains not less than

1.3 lb of total solids. The reduction in milk fat and total milk solids for the addition of bulky ingredients is not applicable; overrun 90–100%.

Example Formulations

	<i>Ice Cream</i>	<i>Ice Milk</i>
Milk fat (%)	10.5	4.0
Milk solids nonfat (%)	11.0	13.0
Sugar (%)	10.5	11.5
Corn sugar solids (%)	6.0	6.5
Stabilizer (%)	0.3	0.3
Emulsifier (%)	0.1	0.1
Total solids (%)	38.4	35.4

Fruit sherbet contains 1–2% milk fat and 2–5% total milk solids with a titratable acidity, calculated as lactic acid, of not less than 0.35%; depending on the fruit source, must contain not less than 2% by weight of citrus fruit, 6% of berry fruit, or 10% of other fruits; overrun 50–60%. One gallon weighs not less than 6 lb.

Fruit water ice is comparable to requirements for fruit sherbets except that milk solids are not utilized and there are no provisions for emulsifiers; overrun 50–60%.

Example Formulations

	<i>Sherbet</i>	<i>Water Ice</i>
Milk fat (%)	1.5	–
Milk solids, nonfat (%)	3.0	–
Sugar (%)	23.0	23.0
Corn syrup solids (%)	7.0	7.0
Stabilizer (%)	0.5	0.5
Citric acid solution/flavor (%)	Not less than	Required amounts

Mellorine contains not less than 6% fat, being animal or vegetable fat. One gallon contains not less than 1.6 lb of total solids and weighs not less than 4.5 lb to the gallon.

FRUIT SPREADS

Fruit jelly is the gelled product made from a mixture of one or more permitted fruit juice ingredients and the optional ingredients, i.e., sweetener, spice, acidulant, pectin, buffering agent, preservative, antifoam agent,

which is concentrated with or without heat; the product has not less than 45 parts by weight of fruit juice ingredients to each 55 parts by weight of sweetener and a soluble solids content of the jelly being not less than 65%.

Grape Jelly Formulation

	<i>Percent</i>
Grape juice	45.0
Sugar	54.8
Pectin, slow set	0.2
Acid solution to pH	3.2

Preserves, jams are viscous or semisolid products composed of a mixture of one or more permitted fruit ingredients and the optional ingredients, i.e., sweetener, spice, acidulant, pectin, buffering agent, preservative, antifoaming agent which is concentrated with or without heat; depending on the fruit, the product has not less than 47 or 45 parts by weight of the fruit ingredient to each 55 parts by weight of the sweetener and a soluble solids content of not less than 65%.

Example Strawberry Jam Formulation

	<i>Percent</i>
Strawberries	26.65
Sugar	58.40
Water	14.60
Pectin, rapid set	0.35
Acid solution	To pH 3.3

Artificially sweetened fruit preserves are viscous or semisolid foods made from a fruit ingredient, an artificial sweetening ingredient, and with or without water and a gelling ingredient with other permitted optional ingredients; the product contains not less than 55% by weight of fruit ingredient and is heated to prevent spoilage.

Artificially sweetened fruit jelly is the gelled product made from a fruit juice ingredient, an artificial sweetening ingredient, and a gelling ingredient with other permitted optional ingredients; the product contains not less than 55% by weight of fruit juice ingredients and is heated to prevent spoilage.

Example Artificially Sweetened Apple Jelly Formulation

	<i>Percent</i>
Apple juice	77.40
Water	21.2
Carrageenan	1.0
Citric acid	0.26
Potassium citrate	0.13
Potassium sorbate	0.08
Sodium saccharin	0.03

MACARONI AND NOODLE PRODUCTS

Macaroni products are prepared by drying formed units of dough made from semolina, durum flour, farina, flour, or any combination of two or more of these with water. Optional ingredients which may be used are egg white (from 0.5 to 2.0%); disodium phosphate (from 0.5 to 1.0%); onion, celery, garlic, bay leaf, salt; gum gluten (in quantities such that the protein content of the finished food does not exceed 13% by weight); concentrated glycerol monostearate (not greater than 2.0%). The finished macaroni product contains not less than 87% of total solids.

Macaroni products are defined by their shape and size as follows:

- Macaroni—Tube-shaped, more than 0.11 in. but not more than 0.27 in. in diameter.
- Spaghetti—Tube-shaped or cord-shaped, more than 0.06 in. but not more than 0.11 in. in diameter.
- Vermicelli—Cord-shaped, not more than 0.06 in. in diameter.

Macaroni products can exist as enriched, enriched with fortified protein, milk macaroni, nonfat milk macaroni, enriched nonfat milk macaroni, vegetable macaroni, enriched vegetable macaroni, whole wheat macaroni, wheat and soy macaroni.

Noodle products are prepared by drying formed units of dough made from semolina, durum flour, farina, flour, or any combination of two or more of these with egg or egg yolks. Optional ingredients which may be used are onions, celery, garlic, bay leaf; salt; gum gluten (in quantities such that the protein content of the finished food does not exceed 13% by weight); concentrated glycerol monostearate (not greater than 3%). The finished noodle product contains not less than

87% of total solids and the total solids contain not less than 5.5% by weight of the solids of egg or egg yolk.

Noodle products are defined by their shape and size as follows:

- Noodles, egg noodles—Ribbon-shaped.
- Egg macaroni—Tube-shaped, more than 0.11 in. but not more than 0.27 in. in diameter.
- Egg spaghetti—Tube-shaped or cord-shaped (not tubular), more than 0.06 in. but not more than 0.11 in. in diameter.
- Egg vermicelli—Cord-shaped, not more than 0.06 in. in diameter.

Noodle products can exist as enriched noodles, vegetable noodles, enriched vegetable noodles, wheat and soy noodles.

MARGARINE AND BUTTER

Margarine (oleomargarine) is the plastic or liquid emulsion which resembles butter and consists of not less than 80% vegetable or rendered animal fat with water and/or milk and/or milk products, with or without protein, and containing not less than 15,000 international units of vitamin A per pound of margarine; other optional ingredients are permitted, i.e., vitamin D, salt, sweeteners, emulsifiers, preservatives, colorants, flavors, acidulants, alkalizers.

Butter is the plastic food product made from milk and/or cream with or without salt and added color, containing not less than 80% by weight of milk fat; it may be produced from sweet or ripened cream by a churning process which converts the cream fat to butter granules.

Imitation margarine is margarine containing less than 80% fat.

MILKS

Milk is the lacteal secretion, practically free of colostrum, which is obtained by the complete milking of cows. There are several types of milks which vary principally according to their fat content.

- Milk: Contains not less than 8.25% milk solids nonfat and not less than 3.25% milk fat.
- Low fat milk: Contains not less than 8.25% milk solids nonfat and between 0.5 and 2.0% milk fat. The 2% milk is commercially designated 2% milk.

- **Skim milk:** Contains not less than 8.25% milk solids nonfat and not more than 0.5% milk fat.
- **Filled milk:** A milk-type product which uses skim milk as a base and nondairy fats (vegetable fats) as a substitute for the milk fat.
- **Imitation milk:** A milk-type product in which nondairy fats (vegetable fats) substitute for the milk fat and in which the carbohydrates and/or proteins may be other than provided by the natural dairy ingredients.

Example Formulations

<i>Filled Milk</i>	<i>Percent</i>	<i>Imitation Milk</i>	<i>Percent</i>
Water	87.75	Water	89.12
Milk solids nonfat	9.00	Whey solids, demineralized	6.60
Vegetable fat	3.25	Sodium caseinate	1.00
		Vegetable fat	3.25
		Carrageenan	0.03
		Flavor and color	Optional

- **Chocolate milk:** Milk flavored with cocoa/chocolate and sweetener, usually containing a gum to provide homogeneous cocoa suspension.
- **Chocolate milk drink:** Low fat to skim milk flavored with cocoa/chocolate and sweetener, usually containing a gum to provide homogeneous cocoa suspension.

Example Chocolate Milk Formulation

	<i>Percent</i>
Milk (3.25% fat)	90.97
Sucrose	8.00
Cocoa powder	1.00
Carrageenan	0.03

- **Evaporated milk:** The partially concentrated milk obtained by removal of water, resulting in a product containing not less than 6.5% by weight milk fat, not less than 16.5% by weight of milk solids not fat, and not less than 23% by weight of total milk solids; vitamin D is added at 25 international units per fluid ounce of evaporated milk; the product is homogenized and processed by heat to prevent spoilage.
- **Sweetened condensed milk:** The partially concentrated milk obtained by removal of water, resulting in a product containing

not less than 8.5% milk fat and 28% total milk solids with sufficient sweetener to prevent spoilage; the product is pasteurized and may be homogenized.

- **Acidified milk:** Food produced by souring either cream, milk, partially skimmed milk, skim milk, alone or in combination with an acidifying ingredient (various acids). Optional ingredients are permitted. It contains not less than 3.25% milk fat and not less than 8.25% milk solids not fat and has a titratable acidity of not less than 0.5%, expressed as lactic acid.
- **Cultured milk:** Food produced by culturing either cream, milk, partially skimmed milk, skim milk alone or in combination with characterizing microbial organisms. Optional ingredients are permitted. It contains not less than 3.25% milk fat and 8.25% milk solids not fat and has a titratable acidity of 0.5%, expressed as lactic acid.
- **Nonfat dry milk:** Product obtained by the removal of water only from pasteurized skim milk. It contains not more than 5% moisture and not more than 1.5% by weight of milk fat unless otherwise indicated.
- **Dry whole milk:** Product obtained by removal of water from pasteurized milk. It contains not less than 26% but less than 40% by weight of milk fat and contains not more than 5% by weight of moisture on a milk solids not fat basis.

PROCESS CHEESE

Process cheese is the cheese product prepared by the blending and heating of ripened cheese with other ingredients resulting in a homogeneous product normally packaged in slice or loaf form. There are three principal classifications: pasteurized process cheese, pasteurized process cheese food, and pasteurized process cheese spread, which differ in the composition of ingredients and fat and moisture content. The product is named according to the variety of cheese used, i.e., pasteurized process cheddar cheese.

Comparative:

Pasteurized process (cheddar) cheese:

- moisture: less than 40%
- fat: not less than 30%

Pasteurized process (cheddar) cheese food:

- contains optional dairy ingredients
- moisture: not more than 44%
- fat: not less than 23%

Pasteurized process (cheddar) cheese spread:

- may contain gums at not more than 0.8% of the weight of the finished food
- moisture: more than 44% but not more than 60%
- fat: not less than 20%

SYRUPS

Table syrup is the liquid food consisting of one or more sweeteners with or without water and containing not less than 65% soluble sweetener solids by weight; optional ingredients are butter, fats and oils, emulsifiers, stabilizers, flavorings, colorants, salt, preservatives, deforming agents, pH agents.

<i>Example Formulation</i>	<i>Percent</i>
Sugar syrup (68° brix)	91.70
Corn syrup (42 DE)	8.00
Maple flavor	0.20
Sodium benzoate	0.03
Caramel color	0.7

Maple syrup is the liquid food obtained by concentrating and heating the sap of the maple tree or by the solution in water of maple sugar obtained from maple sap containing not less than 66% by weight of soluble solids derived solely from such sap. Optional ingredients are salt, preservatives, defoaming agents.

TOMATO PRODUCTS

Tomato paste is the product obtained from the concentration of tomato liquid, containing not less than 24.0% of natural tomato soluble solids, with optional ingredients salt, lemon juice or organic acids,

spice, flavoring, sodium bicarbonate. The product is processed by heat to prevent spoilage.

Tomato puree, also termed tomato pulp, is the product obtained from the concentration of tomato liquid, containing not less than 8.0% but less than 24.0% of tomato soluble solids with the optional ingredients salt, lemon juice or organic acids, spice flavoring, sodium bicarbonate. The product is being processed by heat to prevent spoilage.

Catsup, ketchup, catchup is the product obtained from the concentration of tomato liquid which is optionally seasoned with vinegar, spices, flavoring, onion or garlic, and nutritive carbohydrate sweeteners. The product is processed by heat to prevent spoilage.

Example Catsup Formulation

	<i>Percent</i>
Tomato paste (26% tomato solids)	51.5
Water	21.8
Sugar	15.0
Vinegar (100 grain)	8.5
Salt	3.0
Seasoning	0.2

Tomato juice is the unconcentrated liquid extracted from mature tomatoes of Reddish varieties. It has a tomato soluble solids content of not less than 5% by weight.

YOGURT

Yogurt is the food produced by culturing cream, milk, partially skimmed milk, or skim milk alone or in combination with a bacterial culture that contains the lactic acid-producing bacteria *Lactobacillus bulgaricus* and *Streptococcus thermophilus*. Optional ingredients such as Vitamin A and D, dairy ingredients, flavors, colors, stabilizers may be included. Before inclusion of bulky flavors, the yogurt contains not less than 3.25% milk fat, not less than 8.25% milk solids not fat, and has a titratable acidity of not less than 0.9% expressed as lactic acid.

Lowfat yogurt contains not less than 0.5% and not more than 2% milk fat.

Nonfat yogurt contains less than 0.5% milk fat.