

CHAPTER 1530
DEPARTMENT OF AGRICULTURE
DAIRY INDUSTRY; MILK AND MILK PRODUCTS
(INCLUDES STANDARDS OF VARIOUS
PRODUCTS)

| MILK AND CREAM AND RELATED PRODUCTS | |
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1530.0010 DEFINITIONS.

Subpart 1. **Dairy farm.** A "dairy farm" is any place or premises where one or more cows or goats are kept and from which a part or all of the milk or milk product(s) is provided, sold, or offered for sale to a dairy plant, transfer station, or receiving station.

Subp. 2. **Dairy plant.** A "dairy plant" is any place where a dairy product is manufactured, processed, or handled and includes milk receiving stations, creameries, cheese factories, condenseries, milk plants, transfer stations, and other establishments, as those terms are used in Minnesota Statutes, section 17.27, and chapters 31, 32, 32A, and 33, and rules adopted thereunder; but does not include a dairy farm or an establishment where no dairy products are processed, but dairy products are sold at wholesale or retail only.

Subp. 3. **Milk distributor.** A "milk distributor" is any person who offers for sale or sells to another any milk or milk products.

Subp. 4. **Milk haulers.** A "milk hauler" is any person who transports raw milk and/or raw milk products to or from a dairy plant, receiving station, or a transfer station.

Subp. 5. **Milk producer.** A "milk producer" is any person who operates a dairy farm and provides, sells, or offers milk for sale to a dairy plant, receiving station, or transfer station.

Subp. 6. **Pasteurization.** The terms "pasteurization," "pasteurized," and similar terms shall mean the process of heating every particle of milk or milk product to a temperature of not less than 145 degrees Fahrenheit, and holding it continuously at or above this temperature for not less than 30 minutes, or to not less than 161 degrees Fahrenheit, and holding it continuously at or above this temperature for not less than 15 seconds, in equipment which is properly operated and approved by the commissioner; provided, that milk products which have a higher milkfat content than milk and/or contain added sweeteners shall be heated to not less than 150 degrees Fahrenheit, and held continuously at or above this temperature for not less than 30 minutes, or to not less than 166 degrees Fahrenheit, and held continuously at or above this temperature for not less than 15 seconds, in equipment which is properly operated and approved by the commissioner; provided further, that egg nog and frozen food mix shall be heated to not less than 155 degrees Fahrenheit, and held continuously at or above this temperature for not less than 30 minutes, or to not less than 175 degrees Fahrenheit, and held continuously at or above this temperature for not less than 25 seconds in equipment which is properly operated and approved by the commissioner. Nothing in this subpart shall be construed as excluding any

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other pasteurization process which has been recognized by the United States Public Health Service to be equally efficient and which is approved by the commissioner.

Subp. 7. Receiving station. A "receiving station" is any place, premises, or establishment where raw milk for pasteurization or manufacture is received, handled, or prepared for processing or for resale as unpasteurized milk or fluid milk products.

Subp. 8. Sanitization. "Sanitization" is the application of any effective method or substance to a clean surface for the destruction of pathogens and of other organisms as far as is practicable. Such treatment shall not adversely affect the equipment, the milk or milk product, or the health of consumers, and shall be acceptable to the commissioner.

Subp. 9. Transfer station. A "transfer station" is any place, premises, or establishment where milk or milk products are transferred directly from one transport tank to another.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0020 MILK.

"Milk" is defined as the whole, fresh, clean lacteal secretion, practically free from colostrum, obtained by the complete milking of one or more healthy cows. When prepared for market in fluid form, milk shall contain not less than 8.25 percent milk solids-not-fat and not less than 3.25 percent of milk fat. The name "milk," unqualified, means cow's milk. Identical with Minnesota Statutes, section 32.391, subdivision 1.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0030 GOAT MILK.

"Goat milk" is the lacteal secretion, practically free from colostrum, obtained by the complete milking of one or more healthy goats. If labeled "Grade A," it shall comply with all the applicable requirements of parts 1530.0720 to 1530.0810 and shall be designated by the name "goat milk."

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0040 EWE MILK.

"Ewe milk" is a whole, fresh, clean lacteal secretion free from colostrum, obtained by the complete milking of one or more healthy ewes.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0050 CREAM.

"Cream" is the sweet, fatty liquid separated from milk, with or without the addition of milk or skim milk, which contains not less than 18 percent milk fat.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0060 HOMOGENIZED CREAM.

"Homogenized cream" is cream which has been treated in such a manner as to ensure breakup of the fat globules to such an extent that, after 48 hours of quiescent storage, no visible separation of the fat occurs and the fat percentage of the top 100 milliliters of cream in a quart bottle or a proportionate volume in containers of other sizes, does not differ by more than ten percent of itself from the fat percentage of the remaining cream as determined after thorough mixing.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0070 SOUR CREAM, CULTURED SOUR CREAM.

"Sour cream" or "cultured sour cream" is a fluid or semifluid cream resulting from the souring, by lactic-acid-producing bacteria or similar culture, of pasteurized cream, which contains not less than 0.20 percent acidity expressed as lactic acid.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0080 LIGHT CREAM, COFFEE CREAM, OR TABLE CREAM.

"Light cream," "coffee cream," or "table cream" is cream which contains not less than 18 percent but less than 30 percent milk fat.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0090 WHIPPED LIGHT CREAM, COFFEE CREAM, OR TABLE CREAM.

"Whipped light cream," "coffee cream," or "table cream" is light cream, coffee cream, or table cream into which air or gas has been incorporated.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0100 WHIPPING CREAM.

"Whipping cream" is cream which contains not less than 30 percent milk fat.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0110 LIGHT WHIPPING CREAM.

"Light whipping cream" is cream which contains not less than 30 percent but less than 36 percent milk fat.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0120 HEAVY CREAM OR HEAVY WHIPPING CREAM.

"Heavy cream" or "heavy whipping cream" is cream which contains not less than 36 percent milk fat.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0130 WHIPPED CREAM.

"Whipped cream" is whipping cream into which air or gas has been incorporated.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0140 HALF AND HALF.

"Half and half" is a product consisting of a mixture of milk and cream which contains not less than 10.5 percent milk fat.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0150 SOUR HALF AND HALF OR CULTURED HALF AND HALF.

"Sour half and half" or "cultured half and half" is fluid or semifluid half and half derived from the souring by lactic-acid-producing bacteria or similar culture, of pasteurized half and half, which contains not less than 0.2 percent acidity expressed as lactic acid.

Note: Optional ingredients as defined in part 1530.0170 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

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1530.0160 DRY MILK, DRY MILK SOLIDS.

"Dry milk," "dry milk solids" is the product resulting from the removal of water from milk and contains, all tolerances allowed for, not less than 26 percent of milk fat and not more than five percent of moisture.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0170 NONFAT DRY MILK.

"Nonfat dry milk" is the product resulting from the removal of fat and water from milk and contains the lactose, milk proteins, and milk minerals in the same relative proportion as in the fresh milk from which made. It contains not over five percent of moisture. The term "milk" when used in parts 1530.0170 and 1530.0180 means fresh, sweet milk produced by healthy cows, that has been pasteurized before or during the manufacture of nonfat dry milk. It shall not contain buttermilk or any added preservative, neutralizing agent, or other chemical.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0180 INSTANT NONFAT DRY MILK.

"Instant nonfat dry milk" is nonfat dry milk which has been produced in such a manner as to substantially improve its dispersing and reliquefaction characteristics over that produced by the conventional processes.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0190 CONDENSED SKIM MILK, EVAPORATED SKIM MILK, CONCENTRATED SKIM MILK.

"Condensed skim milk," "evaporated skim milk," "concentrated skim milk" is the product resulting from the evaporation of a considerable portion of the water from skim milk, and contains, all tolerances being allowed for, not less than 20 percent of milk solids.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0200 SWEETENED CONDENSED SKIM MILK.

"Sweetened condensed skim milk" is the product resulting from the evaporation of a considerable portion of the water from skim milk to which sugar and/or dextrose has been added. It contains not less than 24 percent of milk solids.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0210 DRY BUTTERMILK.

"Dry buttermilk" is the product resulting from the removal of water from liquid buttermilk derived from the manufacture of butter. It shall contain not less than 4.5 percent of butterfat and not more than five percent moisture.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0220 DRY WHEY.

"Dry whey" is the product resulting from the removal of water from whey.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0230 MALTED MILK, POWDERED MALTED MILK.

"Malted milk," "powdered malted milk" is the product made by combining whole milk with the liquid separated from a mash of ground barley malt and wheat flour, with or without the addition of sodium chloride, sodium bicarbonate, and potassium bicarbonate, in such a manner as to secure the full enzymic action of the malt extract and by removing water. The resulting

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product contains not less than 7.5 percent of milk fat and not more than 3.5 percent of moisture.

Statutory Authority: MS s 31.10; 31.101; 32.021; 32.401

1530.0240 EVAPORATED MILK.

"Evaporated milk" is the liquid food made by evaporating sweet milk to such point that it contains not less than 7.9 percent of milk fat and not less than 25.9 percent of total milk solids. It may contain one or both of the following optional ingredients:

A. disodium phosphate or sodium citrate or both, or calcium chloride added in a total quantity of not more than 0.1 percent by weight of the finished evaporated milk; and

B. vitamin D in such quantity as to increase the total vitamin D content to not less than 25 U.S.P. units per fluid ounce of the finished evaporated milk. It may be homogenized. It is sealed in a container and so processed by heat as to prevent spoilage.

Statutory Authority: MS s 31.10; 31.101; 32.021; 32.401

1530.0250 LABEL STATEMENT OF OPTIONAL INGREDIENT.

When the optional ingredient specified in part 1530.0240, item B is present, the label shall bear the statement "with increased vitamin D content" or "vitamin D content increased." Such statement shall immediately and conspicuously precede or follow the name "evaporated milk," without intervening written, printed, or graphic matter, wherever such name appears on the label so conspicuously as to be easily seen under customary conditions of purchase.

Statutory Authority: MS s 31.10; 31.101; 32.021; 32.401

1530.0260 COW'S MILK.

For the purpose of parts 1530.0240 to 1530.0290, the word "milk" means cow's milk. Such milk may be adjusted, before or after evaporation, by the addition or abstraction of cream or sweet skim milk or by the addition of concentrated sweet skim milk.

Statutory Authority: MS s 31.10; 31.101; 32.021; 32.401

1530.0270 DETERMINATION OF QUANTITY OF MILK FAT AND TOTAL MILK SOLIDS.

The quantity of milk fat is determined by the method prescribed under "Fat--Official" on page 249 (ed. note: eighth edition, 1955, page 263, section 15.74) and the quantity of total milk solids is determined by the method prescribed under "Total Solids--Official" on page 248 (ed. note: eighth edition, 1955, page 263, section 15.72) of "Official Methods of Analysis of the Association of Official Agricultural Chemists," seventh edition, 1950.

Statutory Authority: MS s 31.10; 31.101; 32.021; 32.401

1530.0280 INCREASE OF VITAMIN D CONTENT.

Vitamin D content may be increased by the application of radiant energy or by the addition of a concentrate of vitamin D (with any accompanying vitamin A when such vitamin D in such concentrate is obtained from natural sources) dissolved in a food oil. If such oil is not milk fat, the quantity thereof added is not more than 0.01 percent of the weight of the finished evaporated milk.

Statutory Authority: MS s 31.10; 31.101; 32.021; 32.401

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1530.0290 DETERMINATION OF QUANTITY OF VITAMIN D.

The quantity of vitamin D is determined by the method prescribed in "Official Methods of Analysis of the Association of Official Agricultural Chemists," seventh edition, 1950, page 788 et. seq., (ed. note: eighth edition, 1955, page 839 et seq. sections 38.64, 38.75) under the heading "Vitamin D in Milk--Official."

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0300 IDENTITY AND LABEL STATEMENT OF OPTIONAL INGREDIENTS FOR CONCENTRATED MILK AND PLAIN CONDENSED MILK.

Concentrated milk, plain condensed milk, conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for evaporated milk by parts 1530.0240 to 1530.0290, except that it is not processed by heat; its container may be unsealed; and the optional ingredients in part 1530.0240, item A are not used.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0310 IDENTITY OF SWEETENED CONDENSED MILK.

"Sweetened condensed milk" is the liquid or semiliquid food made by evaporating a mixture of sweet milk and refined sugar (sucrose) or by any combination of refined sugar (sucrose) and refined corn sugar (dextrose) to such point that the finished sweetened condensed milk contains not less than 28 percent of total milk solids and not less than 8.5 percent of milk fat. The quantity of refined sugar (sucrose) or combination of such sugar and refined corn sugar (dextrose) used is sufficient to prevent spoilage.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0320 COW'S MILK.

For the purpose of parts 1530.0310 to 1530.0330, the word "milk" means cow's milk. Such milk may be adjusted, before or after evaporation, by the addition or abstraction of cream or sweet skim milk or by the addition of concentrated sweet skim milk.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0330 DETERMINATION OF MILK FAT.

Milk fat is determined by the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," fourth edition, 1935, page 281 (ed. note: eighth edition, 1955, page 264, section 15.86), under "Fat--Official."

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0340 IDENTITY OF CONDENSED MILKS WHICH CONTAIN CORN SYRUP.

Condensed milks which contain corn syrup are the foods each of which conforms to the definition and standard of identity prescribed for sweetened condensed milk by parts 1530.0310 to 1530.0330 except that corn syrup or a mixture of corn syrup and sugar is used instead of sugar or a mixture of sugar and dextrose. For the purpose of parts 1530.0160 to 1530.0360, the term "corn syrup" means a clarified and concentrated aqueous solution of the products obtained by the incomplete hydrolysis of cornstarch and includes dried corn syrup. The solids of such corn syrup contain not less than 40 percent by weight of reducing sugars, calculated as anhydrous dextrose.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0350 NAME OF EACH CONDENSED MILK WHICH CONTAINS CORN SYRUP.

The name of each such food is "corn syrup condensed milk," "condensed milk with corn syrup," or "condensed milk prepared with corn syrup" if corn syrup alone is used; or ___ percent corn syrup solids ___ percent sugar condensed milk," "condensed milk with ___ percent corn syrup solids ___ percent sugar" or "condensed milk prepared with ___ percent corn syrup solids ___ percent sugar" if a mixture of corn syrup and sugar is used, the blanks being filled in with the whole numbers nearest the actual percentages of corn syrup solids and sugar in such food; alternately "___ percent sugar" may precede "___ percent corn syrup solids" in such names.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0360 EVAPORATED CREAM, CLOTTED CREAM.

"Evaporated cream," "clotted cream" is cream from which a considerable portion of water has been evaporated.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0370 FLUID MILK PRODUCTS CONTAINING LESS THAN 3.25 PERCENT MILK FAT.

Subpart 1. **Lowfat milk.** "Lowfat milk" is milk from which a sufficient portion of milk fat has been removed to reduce its milk fat content to not less than 0.50 percent and not more than two percent.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Subp. 2. **Skim milk or skimmed milk.** "Skim milk" or "skimmed milk" is milk from which sufficient milk fat has been removed to reduce its milk fat content to less than 0.50 percent.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Subp. 3. **Nonfat, fat-free, defatted milk.** "Nonfat, fat-free, defatted milk" is skim milk which contains not more than 0.1 percent milk fat.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Subp. 4. **Buttermilk.** "Buttermilk" is a fluid product resulting from the manufacture of butter from milk or cream. It contains not less than 8-1/4 percent of milk solids-not-fat.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0380 FLAVORED MILK PRODUCTS.

"Flavored milk products" shall mean milk or milk products to which have been added a flavor and/or sweetener.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0390 CHOCOLATE-FLAVORED MILK.

"Chocolate-flavored milk" is a beverage or confection consisting of milk to which has been added chocolate or cocoa or a mixture of both, with or without a sweetener.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

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1530.0400 CHOCOLATE-FLAVORED SKIM MILK OR CHOCOLATE-FLAVORED DRINK.

"Chocolate-flavored skim milk" or "chocolate-flavored drink" is a beverage or confection consisting of skim milk to which has been added chocolate or cocoa or a mixture of both, with or without a sweetener.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0410 CHOCOLATE-FLAVORED RECONSTITUTED MILK.

"Chocolate-flavored reconstituted milk" is chocolate-flavored milk made from reconstituted milk.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0420 CHOCOLATE-FLAVORED RECONSTITUTED SKIM MILK OR CHOCOLATE-FLAVORED RECONSTITUTED DRINK.

"Chocolate-flavored reconstituted skim milk" or "chocolate-flavored reconstituted drink" is chocolate-flavored skim milk or chocolate-flavored drink made from reconstituted skim milk.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0430 EGG NOG.

"Egg nog" is a fluid milk product consisting of a mixture of milk or milk product containing not less than six percent butterfat, not less than one percent egg yolk solids, and sweetener and flavoring, emulsifier, artificial coloring. Not more than 0.5 percent stabilizer may be added.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0440 EGG-NOG-FLAVORED MILK.

"Egg-nog-flavored milk" is a fluid milk product containing not less than 3.25 percent butterfat, not less than 0.5 percent egg yolk solids, and sweetener and flavoring. Emulsifier, artificial coloring, and not more than 0.5 percent stabilizer may be added.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0450 EGG-NOG-FLAVORED LOWFAT MILK.

"Egg-nog-flavored lowfat milk" is a fluid milk product containing not less than 0.5 percent and not more than two percent butterfat, not less than 0.5 percent egg yolk solids and sweetener and flavoring. Emulsifiers, artificial coloring, and not more than 0.5 percent stabilizer may be added.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0460 EGG-NOG-FLAVORED SKIM MILK.

"Egg-nog-flavored skim milk" is a fluid milk product containing less than 0.5 percent butterfat, not less than 0.5 percent egg yolk solids, and sweetener and flavoring. Emulsifiers, artificial coloring, and not more than 0.5 percent stabilizer may be added.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

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1530.0470 CULTURED BUTTERMILK.

"Cultured buttermilk" is a fluid product resulting from the souring, by lactic-acid-producing bacteria or similar culture, of pasteurized skim milk or pasteurized lowfat milk.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0480 CULTURED MILK OR CULTURED WHOLE MILK BUTTERMILK.

"Cultured milk" or "cultured whole buttermilk" is a fluid product resulting from the souring, by lactic-acid-producing bacteria or similar culture, of pasteurized milk.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0490 COTTAGE CHEESE.

Subpart 1. **General.** "Cottage cheese" is the soft uncured cheese prepared by the procedure set forth in subpart 2. The finished cottage cheese contains not more than 80 percent of moisture, as determined by the method prescribed under "Moisture--Official," on page 247 of "Official Methods of Analysis of the Association of Official Agricultural Chemists," tenth edition (1965) section 15.157.

Subp. 2. **Procedure.** One or more of the dairy ingredients specified in subpart 3 is pasteurized. Calcium chloride may be added in a quantity of not more than 0.02 percent (calculated as anhydrous calcium chloride) of the weight of the mix; harmless lactic-acid-producing bacteria, with or without rennet, are added, and it is held until it becomes coagulated. The coagulated mass may be cut; it may be warmed; it may be stirred. It is then drained. The curd may be washed with water and further drained. It may be pressed, chilled, worked, seasoned with salt.

Subp. 3. **Dairy ingredients.** The dairy ingredients referred to in subpart 2 are sweet skim milk, concentrated skim milk, and nonfat dry milk. If concentrated skim milk or nonfat dry milk is used, water may be added in a quantity not in excess of that removed when the skim milk was concentrated or dried.

Subp. 4. **Skim milk and concentrated skim milk.** For the purposes of subpart 3, the term "skim milk" means the milk of cows from which the milk fat has been separated and "concentrated skim milk" means skim milk from which a portion of the water has been removed by evaporation.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0500 CREAMED COTTAGE CHEESE.

"Creamed cottage cheese" is the soft uncured cheese prepared by mixing cottage cheese with a creaming mixture as provided for in parts 1530.0510 to 1530.0560. The creaming mixture is used in such quantity that the milk fat added thereby is not less than four percent by weight of the finished creamed cottage cheese. The finished creamed cottage cheese contains not more than 80 percent of moisture, as determined by the method prescribed in part 1530.0490.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

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1530.0510 CREAMING MIXTURE.

The creaming mixture consists of cream or a mixture of cream with milk or skim milk or both, to which one or more of the following optional ingredients may be added, subject to the conditions set forth in parts 1530.0500 to 1530.0600:

A. salt;

B. nonfat dry milk, concentrated skim milk, sodium caseinate, ammonium caseinate, potassium caseinate, or dried milk protein may be added singly or in any combination to adjust the solids content, provided the weight of the solids added thereby does not exceed three percent of the weight of the creaming mixture;

C. a culture of harmless lactic acid and flavor-producing bacteria, with or without rennet;

D. a preparation of pasteurized skim milk or cottage cheese whey with added citric acid or sodium citrate, which preparation has been cultured with harmless flavor- and aroma-producing bacteria; and

E. lactic acid, citric acid, phosphoric acid.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0520 OTHER OPTIONAL INGREDIENTS.

A stabilizing ingredient consisting of one or any mixture of two or more of the following: carob (locust) bean gum, guar gum, gum karaya, gum tragacanth, calcium sulfate; carrageenan or salts of carrageenan complying with the requirements of sections 121.1066 and 121.1067 of chapter 4, Federal Food, Drug and Cosmetic Act; fuccelleran or salts of fuccelleran, complying with the requirements of sections 121.1068 and 121.1069 of chapter 4, Federal Food, Drug and Cosmetic Act; gelatin, lecithin, algin (sodium alginate), propylene glycol alginate, sodium carboxymethylcellulose (cellulose gum).

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0530 STABILIZING INGREDIENTS.

Stabilizing ingredients used may be added in a mixture with a carrier consisting of one or any mixture of two or more of the following: sugar, dextrose, corn syrup solids, dextrin, glycerin, propylene glycol. The quantity of the stabilizing ingredient, including any carrier used, is such that the weight of solids contained therein is not more than 0.5 percent of the weight of the creaming mixture.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0540 DIOCTYL SODIUM SULFOSUCCINATE.

When one or more of the optional ingredients in part 1530.0520 is used, dioctyl sodium sulfosuccinate, complying with the requirements of section 121.1137 of chapter 4, Federal Food, Drug and Cosmetic Act, may be used in a quantity not in excess of 0.5 percent by weight of such ingredients.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0550 PASTEURIZATION OF CREAMING MIXTURE.

The creaming mixture is pasteurized, except that the bacterial cultures permitted by parts 1530.0500 to 1530.0600 and the acids listed in part 1530.0510, item E may be added after pasteurization.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0560 DIACETYL STARTER DISTILLATE OR OTHER FLAVORING SUBSTANCES.

Singly or in combination: diacetyl, starter distillate, or other safe and suitable flavoring substances which contribute to the characteristic flavor and aroma associated with the food.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0570 DEFINITIONS.

Subpart 1. **Applicability.** For the purposes of parts 1530.0500 to 1530.0600, the following terms have the meanings given them.

Subp. 2. **Milk, skim milk, and concentrated skim milk.** "Milk" means sweet milk of cows, "skim milk" means milk from which the milk fat has been separated, and "concentrated skim milk" means skim milk from which a portion of the water has been removed by evaporation.

Subp. 3. **Sodium caseinate, ammonium caseinate, calcium caseinate, and potassium caseinate.** "Sodium caseinate," "ammonium caseinate," "calcium caseinate," and "potassium caseinate" mean the dried form of the reaction product resulting from treating casein precipitated from skim milk with a suitable alkali in such a manner that no excess alkali is present, as determined by a pH of not more than 8.0 in a two percent solution at 25 degrees Celsius.

Subp. 4. **Dried milk protein.** "Dried milk protein" means the dried form of the reaction product resulting from treating coprecipitates of milk proteins of which casein and lactalbumin are the constituents of major content with a suitable alkali in such manner that no excess of alkali is present, as determined by a pH of not more than 8.0 in a two percent solution at 25 degrees Celsius.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0580 LABEL STATEMENTS.

When one or a mixture of two or more of the optional ingredients listed in parts 1530.0510, item E, 1530.0520, and 1530.0570, subparts 3 and 4 is used, the label shall bear the statement "___ added" or "with added ___," the blank being filled in with the common name or names of the optional ingredients used; provided, however, that the name "vegetable gum" may be used in lieu of the specific names for carob locust bean gum, guar gum, gum karaya, and gum tragacanth.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0590 LABEL STATEMENT REGARDING ARTIFICIAL FLAVORING.

When any ingredient named under part 1530.0560 is used, the label shall bear the statement "artificially flavored" or "artificial flavor added" or "with added artificial flavoring."

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0600 LABEL DECLARATIONS TO BE USED IN CONJUNCTION WITH "CREAMED COTTAGE CHEESE."

Whenever the name "creamed cottage cheese" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the label declarations prescribed in parts 1530.0580 and 1530.0590, showing the optional ingredients present, shall immediately and conspicuously precede or follow such name without intervening written, printed, or graphic matter.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

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1530.0610 VITAMIN D MILK AND MILK PRODUCTS.

"Vitamin D milk and milk products" are milk and milk products the vitamin D content of which has been increased by a method approved by the commissioner to at least 400 U.S.P. units per quart. A declaration of the amount contained per quart must be stated on the label.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0620 FORTIFIED MILK PRODUCTS.

"Fortified milk products" are milk products other than vitamin D milk and milk products, the vitamin and/or mineral content of which have been increased by a method and in an amount approved by the commissioner. A declaration of the kind and amount of vitamins and/or minerals added per quart must be stated on the label.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0630 RECONSTITUTED OR RECOMBINED MILK AND MILK PRODUCTS.

"Reconstituted or recombined milk and/or milk products" shall mean milk or milk products defined in parts 1530.0100 to 1530.0710 which result from the recombining of milk constituents with potable water.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0640 STERILIZED MILK.

"Sterilized milk" is milk that has been heated to the temperature of boiling water or higher for a length of time sufficient to kill all organisms present.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0650 HOMOGENIZED MILK AND HOMOGENIZED MILK PRODUCTS.

"Homogenized milk and homogenized milk products" are milk and milk products which have been treated to ensure breakup of the fat globules to such an extent that, after 48 hours of quiescent storage at 45 degrees Fahrenheit, no visible cream separation occurs in the milk or milk product, and the fat percentage of the top 100 milliliters of milk in a quart, or of proportionate volumes in containers of other sizes, does not differ by more than ten percent from the fat percentage of the remaining milk or milk product as determined after thorough mixing. The word "milk" shall be interpreted to include homogenized milk.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0660 WHEY.

"Whey" is the product remaining after the removal of fat and casein from milk in the process of cheese making.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0670 DAIRY INDUSTRY; MILK AND MILK PRODUCTS

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1530.0670 CONCENTRATED MILK TO BE RECONSTITUTED FOR FLUID USE.

"Concentrated milk" is a fluid product, unsterilized and unsweetened, resulting from the removal of a considerable portion of the water from milk, which, when combined with potable water, results in a product conforming with the standards for milk fat and solids-not-fat of milk as defined above.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0680 CONCENTRATED MILK PRODUCTS.

"Concentrated milk products" shall be taken to mean and to include homogenized concentrated milk, vitamin D concentrated milk, concentrated skim milk, fortified concentrated skim milk, concentrated lowfat milk, fortified concentrated lowfat milk, concentrated flavored milk, concentrated flavored milk products, and similar concentrated milk products made from concentrated milk or concentrated skim milk, and which, when combined with potable water in accordance with instructions printed on the container, conform with the definitions of the corresponding milk products in this chapter.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0690 ACIDIFIED MILK AND MILK PRODUCTS.

"Acidified milk and milk products" are milk and milk products obtained by the addition of food grade acids to pasteurized cream, half and half, milk, lowfat milk, or skim milk, resulting in a product acidity of not less than 0.20 percent expressed as lactic acid.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0700 MILK PRODUCTS.

"Milk products" as defined herein include cream, homogenized cream, sour cream, cultured cream, light cream, coffee cream, table cream, whipped light cream, coffee cream or table cream, whipping cream, light whipping cream, heavy cream or heavy whipping cream, whipped cream, half and half, sour half and half, cultured half and half, concentrated and dried milk products, dry milk or dry milk solids, nonfat dry milk, or dried skim milk, or skim milk powder, instant nonfat dry milk, condensed skim milk, or evaporated skim milk, concentrated skim milk, sweetened condensed skim milk, dry buttermilk, dry whey, malted milk, or powdered malted milk, evaporated milk, concentrated milk or plain condensed milk, sweetened condensed milk, condensed milks which contain corn syrup, evaporated cream or clotted cream, fluid milk products containing less than 3.25 percent milk fat, lowfat milk, skim milk, nonfat milk, buttermilk, flavored milk products, chocolate-flavored milk, chocolate-flavored lowfat milk, chocolate-flavored skim milk or chocolate-flavored drink, chocolate-flavored reconstituted milk, chocolate-flavored reconstituted skim milk or chocolate-flavored reconstituted drink, egg nog, egg-nog-flavored milk, egg-nog-flavored lowfat milk, egg-nog-flavored skim milk, cultured milk products, cultured buttermilk, cultured milk or cultured whole milk, buttermilk, cottage cheese, creamed cottage cheese, fortified milk and milk products, vitamin D milk and milk products, vitamin and/or mineral fortified milk products, reconstituted milk products, reconstituted milk, reconstituted cream, reconstituted skim milk,

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sterilized milk or milk products, homogenized milk or milk products, whey, concentrated milk, concentrated milk products, and acidified milk and milk products.

Note: Optional ingredients as defined in part 1530.0710 may be used in this product.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

1530.0710 OPTIONAL INGREDIENTS.

"Optional ingredients" shall mean and include dry milk products, concentrated milk, concentrated milk products, flavors, sweeteners, fresh, frozen, or dried egg yolk solids or whole eggs, stabilizers, emulsifiers, acidifiers, vitamins, minerals, and similar ingredients.

Statutory Authority: *MS s 31.10; 31.101; 32.021; 32.401*

GRADE A REQUIREMENTS FOR MILK, MILK PRODUCTS, AND GOAT MILK

1530.0720 PURPOSE.

Parts 1530.0720 to 1530.0810 define "milk," "condensed milk," "dry milk products," "condensed whey," "dry whey," "cottage cheese," and certain "milk products," "milk producer," "pasteurization," etc.; prohibit the sale of adulterated and misbranded milk and milk products; require permits for the sale of Grade A milk and Grade A milk products; regulate the inspection of Grade A dairy farms and Grade A milk plants, the examination, grading, labeling, pasteurization, distribution, and sale of Grade A milk and Grade A milk products; provide for the construction of future Grade A dairies and Grade A milk plants, and the enforcement of parts 1530.0720 to 1530.0810.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0730 AUTHORITY.

Parts 1530.0720 to 1530.0810 are prescribed pursuant to Minnesota Statutes, section 32.394, subdivision 4 by the commissioner to provide rules regarding the identity, production, and processing standards for milk, milk products, and goat milk which are intended to bear the Grade A label.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0740 DEFINITIONS.

Subpart 1. **Applicability.** As used in parts 1530.0720 to 1530.0810, the following definitions shall apply.

Subp. 2. **Grade A Pasteurized Milk Ordinance.** "Grade A Pasteurized Milk Ordinance" shall mean the "Grade A Pasteurized Milk Ordinance--1978 Recommendations" and the "Grade A Condensed and Dry Milk Products and Condensed and Dry Whey--Supplement I to the Grade A Pasteurized Milk Ordinance 1978 Recommendations," including all footnotes and appendixes, standards of the United States Public Health Service/Food and Drug Administration. A copy of this ordinance shall be filed in the office of the regulatory agency.

Subp. 3. **Regulatory agency.** "Regulatory agency" shall mean the commissioner of the Minnesota Department of Agriculture.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0750 ENFORCEMENT.

The production, transportation, processing, handling, sampling, examination, grading, labeling, and sale of all milk and milk products intended to bear the Grade A label, and sold for ultimate consumption within the state of Minnesota, including the inspection of dairy herds, dairy farms, milk plants, receiving stations, and transfer stations and the issuing and revocation of permits to milk

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producers, haulers, distributors, milk plants, receiving stations, and transfer stations, shall be regulated in accordance with the provisions of the 1978 Grade A Pasteurized Milk Ordinance, with the following exceptions: omit sections 9, 16, and 17 in their entirety; the definitions of egg-nog-flavored milk and cottage cheese as set forth in parts 1530.0760 to 1530.0790 shall be included in the definition of milk products.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0760 EGG-NOG-FLAVORED MILK.

Egg-nog-flavored milk is a milk product consisting of a mixture of at least 3.25 percent butterfat, at least 0.5 percent egg yolk solids, sweetener, and flavoring. Emulsifier and a maximum of 0.5 percent stabilizer may be added. Egg-nog-flavored milk shall be pasteurized in approved and properly operating equipment so that every particle is heated and continuously held for the following minimum specified times and temperatures: 150 degrees Fahrenheit and held at or above this temperature for at least 30 minutes; 166 degrees Fahrenheit and held at or above this temperature for at least 15 seconds.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0770 COTTAGE CHEESE.

Cottage cheese is that product defined in the Code of Federal Regulations, title 21, section 133.128.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0780 DRY CURD COTTAGE CHEESE.

Dry curd cottage cheese is that product defined in the Code of Federal Regulations, title 21, section 133.129.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0790 LOWFAT COTTAGE CHEESE.

Lowfat cottage cheese is that product defined in the Code of Federal Regulations, title 21, section 133.131.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0800 MINIMUM REQUIREMENTS.

All references herein to municipalities, municipal ordinances, or police jurisdiction shall refer to the local subdivisions of state government having jurisdiction, provided such local subdivisions' standards are not inconsistent herewith. In all other cases the provisions of this chapter shall apply and the state of Minnesota shall be the proper legal jurisdiction.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0810 EXAMINATION OF MILK AND MILK PRODUCTS.

Sampling procedures and laboratory examinations shall be in substantial compliance with the 14th edition of Standard Methods for the Examination of Dairy Products of the American Public Health Association, and the 13th edition of Official Methods of Analysis of the Association of Official Analytical Chemists.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0820 GRADING PROCEDURE FOR MILK.

All milk offered for sale and purchased for manufacturing purposes shall be purchased and paid for on the grades adopted herein. All of the following tests shall be used in determining the grades for milk for manufacturing purposes at the frequencies established by these rules: bacterial content estimates test; sediment test; abnormalities detectable by sight and odor test; antibiotics and

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bacterial growth inhibitors test; and abnormal milk test.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0830 BACTERIAL CONTENT ESTIMATES TEST.

Either the Resazurin reduction test, the direct microscopic count test, the standard plate count test, or the plate loop count test, described in "Standard Methods for the Examination of Dairy Products," published by the American Public Health Association and on file in the office of the commissioner, or other comparable tests approved by the commissioner, shall be used. The tests shall be made at least once during each calendar month.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0840 GRADE CLASSIFICATION BY BACTERIAL CONTENT ESTIMATE.

The following grade classification by bacterial content estimate shall be used:

| Grade classification | Direct microscopic count, standard plate count or plate loop count | Resazurin reduction time to Munsell color standard 5 P 7/4 |
|----------------------|--|--|
| Grade One (1) | | |
| Can | Not over 500,000 per milliliter | Not less than 2-1/4 hours |
| Bulk | do | Not less than 3-1/4 hours |
| Grade Two (2) | | |
| Can | Not over 3,000,000 per milliliter | Not less than 1-1/2 hours |
| Bulk | do | Not less than 2-1/2 hours |
| Undergrade | | |
| Can | Over 3,000,000 per milliliter | Less than 1-1/2 hours |
| Bulk | do | Less than 2-1/2 hours |

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0850 SEDIMENT TEST METHODS.

The following shall be acceptable sediment test methods for the purpose of determining the grades of milk for manufacturing purposes.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0860 OFF-THE-BOTTOM METHOD.

The off-the-bottom sediment test, described in "Standard Methods for the Examination of Dairy Products," published by the American Public Health Association and on file in the office of the commissioner shall be used for sediment-testing milk delivered in cans. The sample of milk from which the sediment test is made shall consist of a pint of milk taken by drawing the sediment tester once across the bottom diameter of the original container of milk simultaneously with the upstroke of the plunger and discharged through a disc with an exposed area of 1-1/8 inch in diameter.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

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1530.0870 MIXED SAMPLE METHOD.

The mixed sample sediment test of milk from bulk tanks shall be made by drawing one pint of milk from the thoroughly agitated tank of milk and filtering the milk through a lintine disc with an exposed area of .40 inch in diameter.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0880 OTHER METHODS.

Other comparable methods of equal or greater reliability approved by the commissioner may be used for sediment testing of milk delivered in cans or handled in bulk farm tanks. The following sample volumes of milk from the thoroughly agitated tank of milk and the following aperture sizes of lintine discs for filtering the milk shall be acceptable.

| Milk Sample Volumes | Exposed Area of Lintine Disc |
|---------------------|------------------------------|
| 1 Pint | .40 inch aperture |
| 4 oz. | .20 inch aperture |
| 2 oz. | .14 inch aperture |
| 1 oz. | .10 inch aperture |

Such methods shall be acceptable April 3, 1978 and thereafter.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0890 OFFICIAL SEDIMENT CHART.

The sediment test shall be made no less frequently than once each month of a producer's milk deliveries and shall be classified according to the following standards:

| | | |
|-----------|--------------------------------|---------------|
| Pad No. 1 | Not to exceed 0.50 mg sediment | (Acceptable) |
| Pad No. 2 | Not to exceed 1.50 mg sediment | (Acceptable) |
| Pad No. 3 | Not to exceed 2.50 mg sediment | (Probational) |
| Pad No. 4 | Excess of 2.50 mg sediment | (Illegal) |

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0900 ACCEPTABLE MILK.

Acceptable milk shall be milk yielding a sediment pad not to exceed Pad No. 2 (1.5 milligrams sediment).

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0910 PROBATIONAL MILK.

Probational milk shall be milk yielding a sediment Pad No. 3 (in excess of 1.5 milligrams sediment, but not to exceed 2.5 milligrams sediment) for a period not to exceed ten calendar days. After said period, such probational milk shall be classified as illegal milk.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0920 ILLEGAL MILK.

Illegal milk shall be all milk which contains visible foreign materials, is abnormal in any respect, or yields a sediment in excess of Pad No. 3 (2.5 milligrams sediment). Such milk shall be dealt with in accordance with parts 1530.1030 and 1530.1040.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

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1530.0930 ABNORMALITIES DETECTABLE BY SIGHT AND ODOR TEST.

Each delivery or pickup of milk shall be examined by sight and odor to determine the acceptability of the milk. The milk shall look and smell fresh and sweet and shall be free from objectionable odors that would adversely affect the finished product. It shall have no visible abnormal condition including but not limited to curdled, ropy, bloody, or mastitic condition, or visible foreign matter.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0940 ANTIBIOTICS AND/OR BACTERIAL GROWTH INHIBITORS TEST.

At least four times during each six month period, a separate or comingled sample of each producer's milk shall be tested for antibiotic residues and/or bacterial growth inhibitors. The test to be used shall be approved by the commissioner. When a producer's milk shows a positive test, the milk shall be immediately rejected from all markets and shall not be accepted until a subsequent test is negative.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0950 ABNORMAL MILK TEST.

Examination shall be made of each producer's milk at least four times in each six-month period for the presence of unwholesome mammary sections, whether of an inflammatory, infectious, physiological, or environmental origin. When a herd milk sample exceeds any one of the following screening test results, a somatic cell count using the direct microscopic count method or equivalent or the electronic cell count method shall be made on that sample and the results of the confirmatory test shall be the official result:

- A. California mastitis test, weak positive (CMT 1 +);
- B. modified Whiteside test, positive (1 +); and
- C. Wisconsin mastitis test, WMT value of 21 millimeters.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0960 NOTICE PROVISION.

Whenever any of the confirmatory tests indicates the presence of more than 1,500,000 somatic cells per milliliter, the dairy plant shall send a notice to the producer informing him of the excessive somatic cell count. The producer's milk may continue to be accepted. However, effective July 1, 1980, whenever two of the last four consecutive somatic cell counts exceed 1,500,000 cells per milliliter, the dairy plant shall notify in writing both the commissioner and the producer that this has occurred and should the next test also exceed 1,500,000 cells per milliliter, the producer's milk shall be rejected until abnormal milk tests indicate to the commissioner that satisfactory compliance has been obtained. This notice provision shall remain in effect as long as two of the last four consecutive samples exceed 1,500,000 cells per milliliter. The next milk sample shall be taken no less than three days and no more than 14 days from the taking of the previous sample. Until July 1, 1980, this provision shall be used as an educational instrument.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0970 RECORDS.

A record of all tests shall be retained by the person taking the tests for a period of at least one year thereafter.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0980 QUALITY TESTING OF MILK FROM NEW PRODUCER.

Every purchaser of milk for manufacturing purposes or for resale to another for manufacturing purposes shall demand and receive with the first milk delivery received from a producer a copy of the record of quality tests of the producer's milk made by a former purchaser during three months immediately preceding such delivery, unless the producer has not delivered such products to any other purchaser during that period. If the previous purchaser, after receiving a written request for such record from the producers or from the new purchaser, refuses or is unable to comply with such request, the new purchaser shall immediately report such failure or refusal to the commissioner.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.0990 FIRST SHIPMENT OR SHIPMENT FOLLOWING EXTENDED PERIOD OF NONSHIPMENT.

An examination shall be made on the first shipment of milk from all producers shipping milk to a plant for the first time or following an extended period of nonshipment. The milk shall meet all applicable standards for acceptable milk as defined in part 1530.0900. Thereafter, the milk shall be tested in accordance with procedures designated for regular producers.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1000 REJECTED MILK.

Whenever a sample of a producer's milk is classified as undergrade under parts 1530.0820 to 1530.0990, milk from that producer may be accepted for a period not to exceed four weeks. The producer shall be notified immediately that his milk is classified "undergrade milk."

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1010 ADDITIONAL SAMPLES.

Additional samples shall be tested and classified at least weekly, and the producer shall be notified of these test results. If, at the end of the four-week period, the producer's milk does not meet the bacterial standards provided for in parts 1530.0820 to 1530.0990, the milk shall be rejected for sale and no milk from such producer's premises shall be offered for sale thereafter for human consumption nor shall it be accepted by a dairy plant until such sale or acceptance is authorized by the commissioner.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1020 CORRECTED CONDITIONS.

The commissioner may authorize such sale or acceptance of milk by a dairy plant only after the producer demonstrates that the conditions causing unsanitary milk have been corrected.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1030 REJECTION OF ILLEGAL MILK.

Purchases of milk for manufacturing purchasers shall reject all illegal milk immediately. They shall denature it by the addition of a harmless blue coat tar dye approved by the commissioner, shall affix to all cans or containers containing illegal milk a rejection tag provided by the commissioner, and shall indicate on the tag the reason for rejection. Under no circumstances shall such tags be removed from the cans or containers by the trucker, handler, or any other person while such illegal milk is contained therein. Such illegal milk shall not be sold for human consumption.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

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1530.1040 SEDIMENT.

If a randomly selected can of milk yields sediment in excess of 2.5 milligrams, the remaining cans of that delivery of the producer's milk shall be tested and all cans yielding pads in excess of Pad No. 3 shall be declared illegal and shall be rejected, denatured, tagged, and returned to the producer. Thereafter, sediment tests shall be made of all the cans included in each subsequent delivery of said producer's milk until each can of milk in a delivery shows a sediment of 2.5 milligrams or less, but such testing shall not be continued for more than ten calendar days. If after ten days any can of the producer's milk yields sediment in excess of 2.5 milligrams, the producer becomes a rejected patron and no milk from such producer's premises shall be offered for sale thereafter for human consumption nor shall it be accepted by a dairy plant until sale or acceptance is authorized by the commissioner.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1050 PRICE DIFFERENTIAL.

All purchasers of milk for manufacturing purposes shall maintain a price differential of not less than three percent between the purchase prices of grade one and grade two milk and a price differential of not less than ten percent between the purchase prices of grade one and undergrade milk, when such grades of milk are purchased.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1060 PAYMENT BASIS.

The grade of milk paid for shall be based upon the quality and condition of the milk at the time of delivery to the dairy plant and the grade shall be one of the established grades promulgated by the commissioner of agriculture. In the case of bulk pickup, the grade of milk paid for shall be one of the established grades and shall be based upon the quality and condition of the milk at the time of pickup.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1070 REPORTS AND RECORDS.

All purchasers and receivers of milk for manufacturing purposes shall keep such records and make such reports as the commissioner may require.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1080 REPORT FORMS.

All purchasers and receivers of milk for manufacturing purposes shall report to the commissioner, on forms furnished by him, the name and address of each patron whose milk has been rejected, in the manner provided in part 1530.1090, together with such other information as the commissioner may require.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1090 TIME LIMITS FOR REPORTS.

Reports shall be submitted to the commissioner within 48 hours after the four consecutive tests have indicated the producer's milk to be reject milk and within 48 hours after the seventh consecutive delivery in the case of the producer who has become a rejected patron because of excess sediment in the milk delivered from his premises.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1100 RECORDS AT PLANT.

Each purchaser of milk for manufacturing purposes shall maintain an accurate record of the test results used in determining grades purchased and shall record the grades paid for as well as the milk rejected on this same record. Such records shall be kept available at the plant for at least one year from the time the determination is made.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1110 REPORTS TO PRODUCERS.

The purchaser shall notify the producer at the time of payment of the grade of milk being paid for by using the official grade designation, grade one, grade two, or undergrade as the case may be.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1120 GRADING PROCEDURES FOR CREAM.

All cream offered for sale and purchased for manufacturing purposes shall be purchased and paid for on the basis of the grades adopted herein. The tests in parts 1530.1130 to 1530.1170 shall be used in determining the grades for cream for manufacturing purposes.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1130 ACIDITY TEST.

Subpart 1. **In general.** The acidity of cream may be determined by a screening test or by the official test as indicated in subparts 2 and 3.

Subp. 2. **Screening methods.** The person determining the grade of cream may do so by taste or by one of the quick acid methods unless it becomes necessary to settle disagreements as to grade or if the acidity approximates a grade limit, in which case the official method shall be used.

Subp. 3. **Official method.** Weigh nine grams of well-mixed cream into a white cup or casserole. Add one milliliter (approximately 20 drops) of one percent phenolphthalein solution. Using a graduated burette, add 0.1 normal NaOH (sodium hydroxide) dropwise with gentle stirring until a persistent faint pink color appears. This is the end point. Divide the number of milliliters of 0.1 normal NaOH used by ten and record the result as percent lactic acid present (___ percent lactic acid).

Subp. 4. **Example of official method.** Nine grams of cream require four milliliters of 0.1 normal NaOH to produce the faint pink color. Four divided by ten equals 0.4 percent lactic acid which shows the cream to be of grade two quality based on acidity.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1140 SEDIMENT TEST.

The off-the-bottom sediment test described in the current edition of "Standard Methods for the Examination of Dairy Products," published by the American Public Health Association and on file in the office of the commissioner or other comparable tests approved by the commissioner shall be used for sediment-testing cream delivered in cans. A record of all sediment tests taken shall be retained by the person taking them for a period of at least one year thereafter. Sediment test pads of all legal cream shall be returned to the producer, but sediment test pads for all illegal cream shall be retained for at least 60 days at the plant where the cream is tested.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

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1530.1150 OFF-THE-BOTTOM METHOD FOR SEDIMENT TEST.

The sample of cream from which the sediment test is made, using the off-the-bottom method, shall consist of a pint of cream taken by drawing the sediment tester once across the bottom diameter of the original container of cream simultaneously with the upstroke of the plunger. If the viscosity of the cream is such that dilution of the sample becomes necessary to enable forcing it through the filter disc, filtered water kept at a temperature of 130 to 180 degrees Fahrenheit, or filtered water containing four percent sodium bicarbonate and kept at a temperature of 130 to 180 degrees Fahrenheit to neutralize acidity, may be used. If the two-stage quart sediment-testing gun is used, the pint sample of cream shall be drawn in first followed by the hot water or sodium bicarbonate solution as the case may be.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1160 OFFICIAL CHART FOR SEDIMENT.

The sediment test shall be classified according to the following standards and according to the official chart adopted by the commissioner:

| | | |
|-----------|-------|----------|
| Pad No. 1 | clean | 0.0 mg. |
| Pad No. 2 | | 0.5 mg. |
| Pad No. 3 | | 2.5 mg. |
| Pad No. 4 | | 5.0 mg. |
| Pad No. 5 | | 10.0 mg. |

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1170 OTHER EXAMINATION PROCEDURES.

In addition to the tests described in parts 1530.1130 to 1530.1160, each producer's cream shall be examined for visible foreign matter, abnormalities, and for undesirable odors and flavors.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1180 GRADING OF CREAM.

All cream offered for sale and purchased for manufacturing purposes shall be purchased and paid for on the following grades, which shall be determined for each can of each delivery except in the case of sediment which shall be taken at least semimonthly.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1190 GRADE ONE (SWEET) CREAM.

Grade one (sweet) cream shall consist of fresh, clean, fine-flavored cream, the acidity of which, calculated as lactic acid, at no time shall have exceeded .02 of one percent. It may have a slight feed flavor. The sediment from a can of cream selected at random shall not exceed 2.5 milligrams, as indicated by Pad No. 3; however, there shall be no evidence of rodent nor insect contamination.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1200 GRADE TWO CREAM.

Grade two cream shall consist of fresh, clean, fine-flavored cream, the acidity of which, calculated as lactic acid, exceeds .02 of one percent, but at no time shall have exceeded .05 of one percent. It may have a definite feed flavor and other off flavors such as bitter, smothered, and heated, but only to a slight degree. The sediment from a can of cream selected at random shall not exceed 2.5 milligrams, as indicated by Pad No. 3; however, there shall be no evidence of rodent or insect contamination.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1210 GRADE THREE CREAM.

Grade three cream shall consist of cream that is too acid to grade as grade two or contains off flavors such as old cream, utensil, or bitter to a definite degree or weedy or musty only to a slight degree. The sediment from a can of cream selected at random shall not exceed 2.5 milligrams, as indicated by Pad No. 3; however, there shall be no evidence of rodent nor insect contamination.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1220 REJECTED CREAM.

Whenever cream is found to be grade three by tests of four consecutive deliveries, the cream becomes rejected for sale and no cream from such source shall be offered for sale thereafter for human consumption nor shall it be accepted by a purchaser until such sale or acceptance is authorized by the commissioner.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1230 ILLEGAL CREAM.

Illegal cream is cream which has visible foreign material, is abnormal in any respect, or which has a sediment test in excess of 2.5 milligrams, as indicated by Pad No. 3.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1240 REJECTION OF ILLEGAL CREAM.

Purchasers of cream for manufacturing purposes shall reject all illegal cream immediately. They shall denature it by the addition of a harmless blue coal tar dye approved by the commissioner, shall affix to each can or container of illegal cream a rejection tag provided by the commissioner and shall indicate on the tag the reason for rejection. Under no circumstances shall such tags be removed from the can or container by the trucker, handler, or any other person while such illegal cream is contained therein. Such illegal cream shall not be sold for human consumption.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1250 SEDIMENT IN ILLEGAL CREAM.

If the random can of cream yields sediment in excess of 2.5 milligrams, as indicated by Pad No. 3, the remaining cans of that delivery of the producer's cream shall be tested. All cans yielding pads in excess of Pad No. 3 shall be declared illegal, shall be rejected, denatured, tagged, and returned to the producer. In the case of such cream received by common carrier, it shall be destroyed immediately in lieu of denaturing, tagging, and returning it to the shipper. An affidavit disclosing the reason for destruction shall be mailed to the shipper.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1260 SUBSEQUENT DELIVERY.

Thereafter, sediment tests shall be made of all the cans included in each subsequent delivery of said producer's cream until each can of cream in a delivery shows a sediment of 2.5 milligrams or less, but testing shall continue for not more than four consecutive deliveries. If, at the end of the fourth delivery, the producer's cream yields sediment in excess of 2.5 milligrams, as indicated by Pad No. 3, the producer becomes a rejected patron and no cream from such producer shall be offered for sale thereafter for human consumption nor shall it be accepted by a purchaser until such sale or acceptance is authorized by the commissioner.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

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1530.1270 PRICE DIFFERENTIAL.

All purchasers of cream or butterfat for manufacturing purposes shall maintain a price differential of not less than three cents per pound of butterfat between grade one (sweet) cream and grade two cream and a price differential of not less than eight cents per pound of butterfat between grade two cream and grade three cream.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1280 POSTING OF CURRENT DAILY PRICE.

Each cream-buying station or dairy plant which makes daily payment for cream purchased shall post in a prominent place in the establishment the current daily price offered for each grade of cream.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1290 PAYMENT BASIS.

The grade of cream paid for shall be based upon the quality and condition of the cream at the time of delivery to the dairy plant or cream station, and the grade shall be one of the established grades promulgated by the commissioner of agriculture.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1300 REPORTS AND RECORDS.

All purchasers and receivers of cream for manufacturing purposes shall keep such records and make such reports as the commissioner may require.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1310 REPORT FORMS.

All purchasers and receivers of cream for manufacturing purposes shall report to the commissioner, on forms furnished by him, the name and address of each patron whose cream has been rejected, in the manner provided in part 1530.1320 together with such other information as the commissioner may require.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1320 TIME LIMIT FOR REPORTS.

Reports shall be submitted to the commissioner within 48 hours after the fourth consecutive delivery of grade three cream has indicated the producer's cream to be reject cream and within 48 hours after the fourth consecutive delivery of illegal cream in the case of the producer who has become a rejected patron because of excessive sediment.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1330 RECORDS AT PLANT.

Each purchaser of cream for manufacturing purposes shall maintain an accurate record of the test results used in determining grades purchased and shall record the grades paid for as well as the cream rejected on this same record. Such records shall be kept available for at least one year from the time the determination is made.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1340 REPORTS TO PRODUCERS.

The purchaser shall notify the producers, at the time of payment, of the grade of cream being paid for by using the official grade designation, grade one (sweet), grade two, or grade three as the case may be.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1350 DAIRY INDUSTRY; MILK AND MILK PRODUCTS

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1530.1350 SANITARY AND ENCLOSED MILK AND CREAM TRUCKS.

Every truck or other vehicle used for the transportation of milk or cream from farm to a receiving or processing plant shall be in a sanitary condition and shall be enclosed so as to protect the milk or cream from dust or other extraneous substances and from extreme heat or cold; provided, however, that this part shall not apply to farmers hauling their own milk or cream when such milk or cream is protected from dust or other extraneous substances and extreme heat or cold.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1360 PROTECTION OF CANS OF MILK AND CREAM AND RETURNED CLEAN CANS WHEN PICKED UP AND DELIVERED AT ROADSIDE.

If the operator of the truck or other vehicle does not pick up the cans containing milk or cream from the cooling tank or milk house, but picks them up at the roadside, a structure shall be provided by the producer for protecting said cans of milk or cream from dust or other extraneous substances and from extreme heat or cold until picked up by the truck or other vehicle for hauling to the receiving or processing plant.

When return cans are delivered to a roadside, the trucker shall place them in the structure provided therefor.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

SKIM MILK AND BUTTERMILK BOUGHT BY WEIGHT

1530.1370 PURCHASE OF SKIM MILK AND BUTTERMILK.

Purchases of skim milk and buttermilk by one dairy plant from another dairy plant for the purpose of resale as such or for manufacture into dairy products shall be made using the following procedures: the weight of each load of skim milk and buttermilk shall be accurately determined and the weight recorded; a representative sample of each load of skim milk and buttermilk shall be taken, the sample to be used for the determination of the percentage of total milk solids contained therein; and the percent of total milk solids of each such sample shall be determined by a method approved by the commissioner and a record of the test results shall be kept by the purchaser and shall be reported monthly and annually to the commissioner.

Statutory Authority: *MS s 32.395 subd 3*

1530.1380 REPORT OF WEIGHT AND TEST.

A report of the weight and the test of each such load of skim milk and buttermilk shall be furnished to the plant from which the purchase was made, such report to be made not later than the day following delivery, except that reports for deliveries made on Saturday or Sunday may be made on Monday and for deliveries on holidays on the day following the holiday.

Statutory Authority: *MS s 32.395 subd 3*

1530.1390 TEST PROCEDURES.

The test procedure to be used shall be as follows; provided, that the commissioner may permit other procedures which he has determined will give equally satisfactory results.

Statutory Authority: *MS s 32.395 subd 3*

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1530.1400 SAMPLING.

A well-mixed sample of skim milk or buttermilk of sufficient size for the test shall be taken. If not tested immediately, the sample shall be stored at 32 to 40 degrees Fahrenheit until tested. Preservatives shall not be added.

Statutory Authority: *MS s 32.395 subd 3*

1530.1410 METHOD.

The following method, "A Lactometer Method for Determining the Solids of Milk," prepared by the United States Department of Agriculture, Agricultural Research Service, No. ARS 73-10, April, 1956, shall be the official method adopted by the commissioner; provided, that the commissioner may approve other methods which have been found to provide equally satisfactory results.

Statutory Authority: *MS s 32.395 subd 3*

1530.1420 ALTERNATE PROCEDURES.

When alternate procedures in which lactometers are used are approved by the commissioner, a thermostatically controlled water bath for controlling the temperature of the sample during the test also must be employed.

Statutory Authority: *MS s 32.395 subd 3*

1530.1430 LACTOMETER.

The lactometer used for the testing of solids in skim milk and buttermilk shall be certified as accurate by the manufacturer. The commissioner may determine its accuracy from time to time as he deems necessary.

Statutory Authority: *MS s 32.395 subd 3*

1530.1440 TESTING BUTTERMILK.

When buttermilk is tested, the procedures referred to under part 1530.1410 for determining total solids shall be used and the amount of butterfat shall be determined and the result used in calculating the total solids present.

Statutory Authority: *MS s 32.395 subd 3*

BUTTERS

1530.1450 BUTTER.

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

Statutory Authority: *MS s 32.395 subd 3*

1530.1460 RENOVATED BUTTER, PROCESS BUTTER.

Renovated butter, process butter is the product made in semblance of butter from melted, clarified, or refined butterfat without the addition or use of any substance other than water, milk, cream, or salt and with or without additional coloring matter and containing not less than 80 percent by weight of milk fat, all tolerances having been allowed for.

Statutory Authority: *MS s 32.395 subd 3*

1530.1470 SWEET CREAM BUTTER.

Sweet cream butter is that butter churned from fresh sweet cream, untreated (except by pasteurization), no part of which has attained an acidity exceeding 0.2 percent calculated as lactic acid and to which no ripening ferment has been added; with or without the addition of salt and/or coloring; nor shall the cream contain more than 35 percent milk fat. It contains not less than 80 percent by weight of milk fat, all tolerances having been allowed for.

Statutory Authority: *MS s 32.395 subd 3*

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1530.1480 CULTURED SWEET CREAM BUTTER.

Cultured sweet cream butter is that butter churned from sweet cream, no part of which has attained an acidity exceeding 0.2 percent calculated as lactic acid and to which in the process of manufacture, a ripening ferment has been added; with or without the addition of salt and/or coloring; nor shall the cream contain more than 35 percent of milk fat. It contains not less than 80 percent by weight of milk fat, all tolerances having been allowed for.

Statutory Authority: *MS s 32.395 subd 3*

GRADING AND LABELING OF BUTTER

1530.1490 DEFINITIONS.

Subpart 1. **Butter.** Butter is the food product usually known as butter and which is made exclusively from milk or cream or both with or without common salt and with or without additional coloring matter, and containing not less than 80 percent by weight of milk fat, all tolerances having been allowed for.

Subp. 2. **Cream.** The term "cream," when used in parts 1530.1490 to 1530.1690, means churning into butter. For the purposes of these parts, pasteurization shall mean that every particle of such cream shall be heated to a temperature of not less than 165 degrees Fahrenheit and held continuously at or above this temperature for not less than 30 minutes or to a temperature of not less than 185 degrees Fahrenheit and held continuously at or above this temperature for not less than 15 seconds in equipment which is properly operated and approved by the commissioner. Nothing in this subpart shall exclude other processes of pasteurization which are found to be equally efficient and are approved by the commissioner. Immediately following pasteurization, all such cream shall be cooled in equipment which is properly operated and approved by the commissioner to a temperature of 50 degrees Fahrenheit or lower and held at such temperature until subjected to the churning process.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1500 MINNESOTA GRADES:

The nomenclature of Minnesota grades is as follows: Minnesota Grade AA (93 score); Minnesota Grade A (92 score); Minnesota Grade B (90 score); and Minnesota Undergrade (89 score or below).

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1510 DETERMINATION OF MINNESOTA GRADES.

The basis for determination of Minnesota grades of butter shall be as follows: the flavor shall be classified in accordance with part 1530.1515; the defects in body, color, and salt shall be classified in accordance with parts 1530.1520 and 1530.1540; the relation of the Minnesota grade of the butter to the flavor classification of it, as affected by total defects in body, color, and salt, shall be determined in accordance with parts 1530.1530 and 1530.1540.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1515 CLASSIFICATION OF FLAVORS IN BUTTER.

Various identified flavors in butter shall be classified as follows:

Subpart 1. **Table.**

| Identified Flavors | Flavor Classification | | | |
|--------------------|-----------------------|----------|----------|---|
| | AA | A | B | C |
| Feed | Slight | Definite | | |
| Cooked (fine) | Definite | | | |
| Aged | | Slight | Definite | |
| Bitter | | do | do | |

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| | | | | |
|----------------------|----------|----------|----------|--|
| Coarse acid | do | do | | |
| Flat | do | | | |
| Smothered | do | Definite | | |
| Storage | do | do | | |
| Cooked (coarse) | Definite | | | |
| Musty | | Slight | Definite | |
| Neutralizer | | do | do | |
| Scorched | | do | do | |
| Utensil | | do | do | |
| Weed | | do | do | |
| Whey | | do | do | |
| Woody | | do | do | |
| Old Cream | | Definite | | |
| Barny | | | Slight | |
| Cheesy | | | do | |
| Fruity | | | do | |
| Metallic | | | do | |
| Oily | | | do | |
| Sour | | | do | |
| Wild onion or garlic | | | do | |
| Yeasty | | | do | |
| Stale | | | Definite | |

Subp. 2. Explanations.

Regarding identified flavors in subpart 1, when more than one flavor is discernible in a sample of butter, the flavor classification of the sample shall be established on the basis of the flavor that carries the lowest classification.

Grade AA shall be fine and highly pleasing.

Grade A shall be pleasing and desirable.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1520 CLASSIFICATION OF DEFECTS IN BODY, COLOR, AND SALT.

The classification of defects in body, color, and salt shall be as follows:

| Body Defect | Degree | Rating | Degree | Rating |
|----------------|--------|--------|----------|--------|
| Crumbly | Slight | 1/2 | Definite | 1 |
| Gummy | Slight | 1/2 | Definite | 1 |
| Leaky | Slight | 1/2 | Definite | 1 |
| Mealy | Slight | 1/2 | Definite | 1 |
| Short | Slight | 1/2 | Definite | 1 |
| Spongy or weak | Slight | 1/2 | Definite | 1 |
| Sticky | Slight | 1/2 | Definite | 1 |
| Ragged boring | Slight | 1 | Definite | 2 |
| Grainy | Slight | 1 | Definite | 2 |
| Color | | | | |
| Wavy | Slight | 1/2 | Definite | 1 |
| Mottled | Slight | 1 | Definite | 2 |
| Streaked | Slight | 1 | Definite | 2 |
| Specks | Slight | 1 | Definite | 2 |
| High Color | | | Definite | 1 |
| Salt | | | | |
| Sharp | Slight | 1/2 | Definite | 1 |
| Gritty | Slight | 1 | Definite | 2 |

Statutory Authority: *MS s 31.10; 32.475 subd 4*

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1530.1530 RELATION OF MINNESOTA GRADE OF BUTTER TO FLAVOR CLASSIFICATION AS AFFECTED BY TOTAL DEFECTS IN BODY, COLOR, AND SALT.

The flavor classification and maximum defects in body, color, and salt permitted for each Minnesota grade are as follows:

| Flavor Classification | Maximum Defects Permitted | Minnesota Grade |
|-----------------------|---------------------------|------------------|
| AA | 1/2 | AA or 93 |
| AA | 1 | A or 92 |
| A | 1/2 | A or 92 |
| AA | 2-1/2 | B or 90 |
| A | 1-1/2 | B or 90 |
| B | 1/2 | B or 90 |
| A | 2-1/2 | Minn. Undergrade |
| B | 1-1/2 | Minn. Undergrade |
| C | 1-1/2 | Minn. Undergrade |

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1540 EXAMPLES OF RELATION OF MINNESOTA GRADES TO FLAVOR CLASSIFICATION AND TOTAL DEFECTS IN BODY, COLOR, AND SALT.

Examples of the relation of Minnesota grades to flavor classification and total defects in body, color, and salt are as follows:

| Example No. | Flavor Classification | Body | Defects Color | Salt | Total Defects | Permitted Total Defects | Defects in Excess of Total Permitted | Minnesota Grades |
|-------------|-----------------------|------|---------------|------|---------------|-------------------------|--------------------------------------|------------------|
| 1 | AA | 1/2 | 0 | 0 | 1/2 | 1/2 | 0 | AA or 93 |
| 2 | AA | 0 | 1 | 0 | 1 | 1/2 | 1/2 | A or 92 |
| 3 | AA | 1 | 0 | 1/2 | 1 1/2 | 1/2 | 1 | B or 90 |
| 4 | AA | 1 | 1 | 0 | 2 | 1/2 | 1 1/2 | B or 90 |
| 5 | AA | 1 | 1 | 1/2 | 2 1/2 | 1/2 | 2 | B or 90 |
| 6 | A | 1/2 | 0 | 0 | 1/2 | 1/2 | 0 | A or 92 |
| 7 | A | 0 | 1 | 0 | 1 | 1/2 | 1/2 | B or 90 |
| 8 | A | 1 | 0 | 1/2 | 1 1/2 | 1/2 | 1 | B or 90 |
| 9 | A | 1 | 1 | 0 | 2 | 1/2 | 1 1/2 | Undergrade |
| 10 | A | 1 | 1 | 1/2 | 2 1/2 | 1/2 | 2 | Undergrade |
| 11 | B | 1/2 | 0 | 0 | 1/2 | 1/2 | 0 | B or 90 |
| 12 | B | 0 | 1 | 0 | 1 | 1/2 | 1/2 | Undergrade |
| 13 | B | 1 | 0 | 1/2 | 1 1/2 | 1/2 | 1 | Undergrade |
| 14 | C | 1 | 0 | 0 | 1 | 1/2 | 0 | Undergrade |
| 15 | C | 1 | 1/2 | 0 | 1 1/2 | 1/2 | 0 | Undergrade |

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1550 SPECIFICATIONS FOR MINNESOTA GRADES OF BUTTER.

The specifications for Minnesota grades of butter are as follows: butter of all Minnesota grades shall be free of visible mold and foreign materials.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1560 MINNESOTA GRADE AA (93 SCORE).

Minnesota Grade AA (93 score) butter conforms to the following: possess a fine, highly pleasing flavor; may possess a slight feed and a definite cooked (fine) flavor. It is made from sweet cream or cream of low natural acid to which a culture (starter) may or may not have been added. The permitted total

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defects in body, color, and salt are limited to one-half in accordance with part 1530.1520.

Statutory Authority: *MS s 31.10: 32.475 subd 4*

1530.1570 MINNESOTA GRADE A (92 SCORE).

Minnesota Grade A (92 score) butter conforms to the following: possess a pleasing and desirable flavor; may possess any of the following flavors to a slight degree: aged, bitter, coarse-acid, flat, smothered, and storage; may possess feed and cooked (coarse) flavors to a definite degree. The permitted total defects in body, color, and salt are limited to one-half in accordance with part 1530.1520 unless the flavor classification permits these defects to exceed one-half.

Butter that has a flavor classification of Minnesota Grade AA and total defects in body, color, and salt which exceed one-half but do not exceed one in accordance with part 1530.1520 shall be Minnesota Grade A or Minnesota 92 score.

Statutory Authority: *MS s 31.10: 32.475 subd 4*

1530.1580 MINNESOTA GRADE B (90 SCORE).

Minnesota Grade B (90 score) butter conforms to the following: may possess any of the following flavors to a slight degree: musty, neutralizer, scorched, woody, weed, whey, and utensil; may possess any of the following flavors to a definite degree: aged, bitter, coarse-acid, old cream, smothered, and storage. The permitted total defects in body, color, and salt are limited to a total of one-half in accordance with part 1530.1520 unless the flavor classification permits these defects to exceed one-half.

Butter that has a flavor classification of Minnesota Grade AA and total defects in body, color, and salt which exceed one but do not exceed 2-1/2 in accordance with part 1530.1520 shall be Minnesota Grade B or 90 score. Butter that has flavor classification of Minnesota Grade A and total defects in body, color, and salt which exceed one-half but do not exceed 1-1/2 in accordance with part 1530.1520 shall be Minnesota Grade B or 90 score.

Statutory Authority: *MS s 31.10: 32.475 subd 4*

1530.1590 MINNESOTA UNDERGRADE BUTTER.

Butter that is below the requirements for Minnesota Grade B is Minnesota Undergrade butter.

Statutory Authority: *MS s 31.10: 32.475 subd 4*

1530.1600 EXPLANATION OF FLAVOR TERMS.

With respect to flavor:

- A. "Slight" means detected only upon critical examination.
- B. "Definite" means not intense but readily detectable.
- C. "Aged" means characterized by lack of freshness; attributable to short or extended storage periods of the butter above freezer temperatures.
- D. "Barny" means associated with cow or stable odors; attributable to odor absorption or bacterial action.
- E. "Bitter" means puckery, astringent taste.
- F. "Cheesy" means suggestive of cheese.
- G. "Coarse acid" means lacks fine flavor but has no definite acid flavor.
- H. "Cooked (fine)" means resulting from heat application to the cream, but not an intense flavor.
- I. "Cooked (coarse)" means an intense flavor resulting from heat application to the cream.

J. "Feed" means flavors (from normal feeds such as alfalfa, sweet clover, silage, or similar feed) in milk carried through into the butter.

K. "Flat" means lacks definite natural butter flavor.

L. "Fruity" means a sweetish fruit flavor.

M. "Metallic" means suggestive of metal, attributable to contact with metal surfaces or bacterial action.

N. "Musty" means suggestive of storage in damp cellar or cave.

O. "Neutralizer" means flavor characteristic of neutralizing agents.

P. "Oily" means suggestive of oil; characterized by an oily-like taste with an accompanying suggestion of oxidation of the fat.

Q. "Old cream" means aged cream characterized by lack of freshness.

R. "Scorched" means a more intensified flavor than cooked (coarse).

S. "Smothered" means suggestive of improperly cooled milk or cream, containers exposed to hot sun.

T. "Sour" means acid flavor and aroma.

U. "Stale" means characterized by aged cream of poor quality.

V. "Storage" means characterized by lack of freshness; attributable to extended storage periods of the butter.

W. "Utensil" means suggestive of improper or inadequate washing and sanitizing of milking machines, separators, utensils, or factory equipment, or of poorly tinned equipment.

X. "Weed" means weed flavors from common weeds that may be present in butter derived from milk or cream of cows that have eaten weedy hay or have grazed on weed-infested pastures, free from offensive weed flavors (such as pepper grass or french weed).

Y. "Whey" means mildly acid flavor and aroma characteristic of whey, resulting from use of whey cream.

Z. "Wild onion or garlic" may be present in butter derived from milk or cream of cows that have eaten wild onion or garlic.

AA. "Woody" means suggestive of wood, attributable to absorption from wood equipment.

BB. "Yeasty" means indicating yeast fermentation.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1610 EXPLANATION OF TERMS PERTAINING TO BODY.

With respect to body:

A. "Crumbly" means particles lack cohesion.

B. "Grainy" means granular consistency, more intense granular condition than mealy.

C. "Gummy" means does not melt readily.

D. "Leaky" means free water appearing as beads on the surface of the butter.

E. "Mealy" means coarse granular consistency.

F. "Ragged boring" means sticky-crumbly condition preventing drawing of a full trier.

G. "Short" means excessively tight, fine texture.

H. "Spongy or weak" means lacks compactness or firmness.

I. "Sticky" means adheres to trier as a smear.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

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1530.1620 EXPLANATION OF COLOR TERMS.

With respect to color:

- A. "High color" means excessive coloring, unnatural.
- B. "Mottled" means light-colored areas giving a marbled appearance.
- C. "Specks" means color specks appearing in the butter.
- D. "Streaked" means long streaks of light-colored portions.
- E. "Wavy" means unevenness of color appearing as waves of different shades of yellow.

Statutory Authority: *MS s 31.10: 32.475 subd 4*

1530.1630 EXPLANATION OF TERMS PERTAINING TO SALT.

With respect to salt:

- A. "Gritty" means coarse or sandlike particles.
- B. "Sharp" means characterized by taste suggestive of excessive salt.

Statutory Authority: *MS s 31.10: 32.475 subd 4*

1530.1640 LABEL.

"Label" means a display of written, printed, or graphic matter on the outside container or wrapper of the retail package of butter.

Statutory Authority: *MS s 31.10: 32.475 subd 4*

1530.1650 GRADE STATEMENT ON PACKAGE LABEL.

No person shall sell, offer, or expose for sale or have in possession with intent to sell, any butter at retail in the state of Minnesota unless its label bears a statement of the grade determined under parts 1530.1490 to 1530.1690. The grade statement shall be "Minnesota Grade AA," "Minnesota Grade A," "Minnesota Grade B," or "Minnesota Undergrade," as the case may be. The letters "AA," "A," or "B" may immediately precede the term "Grade" and the name of the state may be abbreviated "Minn." The letters of the grade statement shall be not less than 12-point bold face-type on a strongly contrasting background. The grade statement shall prominently appear on the part or panel of the label which is represented or displayed under customary conditions of purchase. One-half or one-quarter pound sections of butter, individually wrapped, when displayed for sale at retail shall show on the wrapper the Minnesota grade of such butter. The term "when graded" or similar qualifying terms shall not be used on the label in conjunction with the grade statement.

Statutory Authority: *MS s 31.10: 32.475 subd 4*

1530.1660 UNIFORM INSIGNIA FOR MINNESOTA GRADE AA OR A.

A uniform grade insignia may be used on the package label of butter which has been manufactured in Minnesota and which has been graded "Minnesota Grade AA" or "Minnesota Grade A." The insignia shall consist of the grade statement enclosed by an outline map of Minnesota. The lines forming the map shall be not less than three points in width. The grade statement shall otherwise conform to the requirements in part 1530.1650. No other written, printed, or graphic matter shall appear within the outline map. No person shall use the grade insignia on the label of any butter except as herein provided; nor shall any person use any insignia in semblance thereof on the label of any butter.

Statutory Authority: *MS s 31.10: 32.475 subd 4*

1530.1670 UNITED STATES OR STATE REGULATORY DEPARTMENT GRADED BUTTER.

The provision of parts 1530.1490 to 1530.1690 shall not be applicable to any butter the label of which bears the grade of any such butter as determined by official inspection under regulations and standards of either the federal or any state regulatory department having requirements for the various grades of butter and butter labeling equal to or in excess of the standards and quality required by the state of Minnesota.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1680 EXAMINATION OF BUTTER.

Samples of butter from stores and other places where butter is sold at retail shall be examined for grade as often as the commissioner may require. All proprietors of such places shall furnish the commissioner, upon his request, with the names of all distributors from whom butter is obtained. Such samples shall be forwarded to the Department of Agriculture, Saint Paul, Minnesota.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

1530.1690 FEDERAL LICENSED GRADERS.

Federal licensed graders shall grade all butter samples submitted for grade in accordance with the foregoing standards.

Statutory Authority: *MS s 31.10; 32.475 subd 4*

QUIESCENTLY FROZEN CONFECTIONS**1530.1700 DEFINITIONS.**

Subpart 1. Applicability. Two of the following three definitions are general in nature, setting out standards of identity for two groups of products. The first, "quiescently frozen confections," includes those confections in which dairy ingredients are not generally used but does cover those items in which dairy ingredients are sometimes used in amounts insufficient to characterize these products as dairy confections. The second, "quiescently frozen dairy confections," includes only those confections that are generally characterized by their dairy ingredients. The third definition is specific for milk products.

Subp. 2. Quiescently frozen confection. "Quiescently frozen confection" means a clean and wholesome frozen product made from a mixture of water, sugar, and flavoring, with or without coloring, in the manufacture of which freezing has not been accompanied by stirring or agitation (generally known as quiescent freezing). This confection may be acidulated with harmless organic acid, may contain milk solids, may be made with or without added harmless natural and/or imitation flavoring, with or without added harmless coloring. The finished product may contain not more than one-half of one percent by weight of stabilizer composed of wholesome, edible material. The finished product shall contain not less than 17 percent by weight of total food solids.

Subp. 3. Quiescently frozen dairy confection. "Quiescently frozen dairy confection" means a clean and wholesome frozen product made from water, milk products, and sugar, with added harmless natural and/or imitation flavoring, with or without added harmless coloring, with or without added stabilizer, and with or without added emulsifier; and in the manufacture of which freezing has not been accompanied by stirring or agitation (generally known as quiescent freezing). It contains not less than 13 percent by weight of total milk solids, not less than 33 percent by weight of total food solids, not more than one-half of one percent by weight of stabilizer and not more than one-fifth of one percent by weight of emulsifier. The stabilizer and emulsifier must be composed of wholesome, edible material.

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Subp. 4. **Milk products.** "Milk products" means pure, clean, and wholesome cream, dried cream, plastic cream--sometimes known as concentrated milk fat, butter, butter oil, milk, concentrated milk, evaporated milk, sweetened condensed milk, superheated condensed milk, dried milk, skim milk, concentrated skim milk, evaporated skim milk, condensed skim milk, sweetened condensed part-skim milk, nonfat dry milk, sweet cream buttermilk, whey, concentrated whey, and dry whey and shall include any of the foregoing products from which lactose has been wholly or partially removed and any other product made by the addition of any approved substance to any of these milk products and used for similar purposes and which, when designated as a milk product by the commissioner, is known by its common name.

Statutory Authority: *MS s 31.10; 31.101; 32.021*

1530.1710 MANUFACTURING LIMITATIONS.

These quiescently frozen confections and quiescently frozen dairy confections must be manufactured in the form of servings, individually packaged, bagged, or otherwise wrapped, properly labeled, and purveyed to the consumer in the original factory-filled package.

Statutory Authority: *MS s 31.10; 31.101; 32.021*

1530.1720 PROCESSING OR MIXING PRIOR TO QUIESCENT FREEZING.

In the production of these quiescently frozen confections and quiescently frozen dairy confections, no processing or mixing prior to quiescent freezing shall be used that develops in the finished confection mix any physical expansion in excess of 15 percent.

Statutory Authority: *MS s 31.10; 31.101; 32.021*

1530.1730 PLANT SANITATION REQUIREMENTS.

Plants in which quiescently frozen confections and quiescently frozen dairy confections are manufactured shall conform with all the applicable items of sanitation described under parts 1525.0730 to 1525.1460.

Statutory Authority: *MS s 31.10; 31.101; 32.021*

1530.1740 PASTEURIZATION AND COOLING OF MIX.

Mix for quiescently frozen dairy confections and for quiescently frozen confections containing milk products shall be pasteurized and cooled immediately after pasteurization in accordance with Minnesota Statutes, section 32.64, subdivisions 1 and 2, and records of such pasteurization and cooling shall be kept in accordance with Minnesota Statutes, section 32.64, subdivision 3.

Statutory Authority: *MS s 31.10; 31.101; 32.021*

1530.1750 BACTERIAL COUNTS, COLIFORM COUNTS.

At no time after pasteurization shall quiescently frozen confections containing milk products, quiescently frozen dairy confections or the mixes therefor, or quiescently frozen confections not containing milk products or the mix therefor have bacterial counts exceeding 50,000 bacteria per gram or coliform counts exceeding 20 coliforms per gram as determined in accordance with Minnesota Statutes, section 32.64, subdivision 4.

Statutory Authority: *MS s 31.10; 31.101; 32.021*

1530.1760 LABELING.

The containers for quiescently frozen confections and quiescently frozen dairy confections shall be labeled. Such labels shall disclose the following information in a size and color of type on a contrasting background making it easy to read:

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A. The common or usual name of the food as defined herein. This shall include the terms "quiescently frozen confection" or "quiescently frozen dairy confection," as the case may be; trademark names (brand names) may be used in conjunction therewith.

B. The term "artificial flavoring and coloring," if it is used.

C. The quantity of the contents in terms of liquid measure shall be given in the terms of the United States gallon and its customary subdivisions, quarts, pints, and fluid ounces.

D. The name and address of the manufacturer or distributor provided, that when the name of the distributor is used, it shall be so identified, and the identity of the manufacturer also shall be given. By identity of manufacturer is meant:

(1) the actual name and address of the manufacturer; or

(2) an identification code or number consisting of the number from the IBM Numerical Code of States representing the state of origin followed by a hyphen and the plant number corresponding to a permanent list of numbers assigned by the state regulatory agency having jurisdiction. Such number may be printed, embossed, or stamped on the label. If the manufacturer cannot be identified because of misuse of the identity code, the product shall be deemed to be misbranded.

Statutory Authority: *MS s 31.10; 31.101; 32.021*

1530.1770 LABELS FOR INDIVIDUALLY WRAPPED QUIESCENTLY FROZEN CONFECTIONS.

Labels for individually wrapped quiescently frozen confections may omit the name of the flavor used provided that the container from which they are individually dispensed bears such information in a clearly legible manner.

Statutory Authority: *MS s 31.10; 31.101; 32.021*

1530.1780 MIXES FOR QUIESCENTLY FROZEN CONFECTIONS AND QUIESCENTLY FROZEN DAIRY CONFECTIONS.

Mix for quiescently frozen confections and quiescently frozen dairy confections which is sold packaged as individual servings in the unfrozen form shall conform to all applicable requirements of this rule. The names of these products shall be "mix for quiescently frozen confection" or "mix for quiescently frozen dairy confection" as the case may be.

Statutory Authority: *MS s 31.10; 31.101; 32.021*

1530.1790 MIX FOR QUIESCENTLY FROZEN CONFECTIONS NOT CONTAINING DAIRY PRODUCTS.

Mix for quiescently frozen confections not containing dairy products may have sodium benzoate preservative added thereto in amount not to exceed one-tenth of one percent and when such preservative is so added, the label shall declare it as follows: "one-tenth percent benzoate of soda added as a preservative" or "one-tenth percent of sodium benzoate added as a preservative" or "preserved by one-tenth percent sodium benzoate" or "preserved by one-tenth percent benzoate of soda" or any other statement having the same meaning and having been approved by the commissioner.

Statutory Authority: *MS s 31.10; 31.101; 32.021*

FROZEN DAIRY FOODS

1530.1800 ICE CREAM.

"Ice cream" is the food prepared by freezing, while stirring, a pasteurized mix composed of one or more of the optional dairy ingredients specified in part 1530.1820 sweetened with one or more of the optional sweetening ingredients specified in part 1530.1830. One or more of the optional characterizing ingredients specified in part 1530.1810 and one or more of the optional ingredients specified in part 1530.1830, items E to J may be used to characterize the ice cream. One or more of the optional caseinates specified in part 1530.1840 and one or more of the optional ingredients specified in part 1530.1850 may be used, subject to the conditions hereinafter set forth. The mix may be seasoned with salt, and may be homogenized. The kind and quantity of optional dairy ingredients used as specified in part 1530.1820, and the content of milk fat and nonfat milk solids therein, are such that the weights of milk fat and total milk solids are not less than ten percent and 20 percent, respectively, of the weight of the finished ice cream; but in no case shall the content of milk solids not fat be less than six percent, except that when one or more of the bulky optional ingredients as specified in part 1530.1810, items C to H, are used, the weights of milk fat and total milk solids (exclusive of such fat and solids in any malted milk used) are not less than ten percent and 20 percent, respectively, of the remainder obtained by subtracting the weight of such optional ingredients, modified as prescribed below, from the weight of the finished ice cream; but in no case is the weight of milk fat or total milk solids less than eight percent and 16 percent, respectively, of the weight of the finished ice cream. The optional caseinates specified in part 1530.1840 are not deemed to be milk solids. In calculating the reduction of milk fat and total milk solids from the use of bulky optional ingredients, chocolate and cocoa solids used shall be considered the bulky ingredients of part 1530.1810, item C. The finished ice cream contains not less than 1.6 pounds of total solids to the gallon and weighs not less than 4.5 pounds to the gallon. Artificial flavoring in any chocolate, cocoa, confectionery, or other ingredient used is an optional ingredient of the finished ice cream. Coloring, including artificial coloring, may be added.

Statutory Authority: *MS s 31.10; 31.101*

1530.1810 OPTIONAL CHARACTERIZING INGREDIENTS.

The optional characterizing ingredients referred to in part 1530.1800 are:

- A. ground spice, ground vanilla beans, infusion of coffee or tea, or any natural food flavoring;
- B. artificial food flavoring;
- C. chocolate or cocoa, which may be added as such or as a suspension in syrup, and which may contain disodium phosphate or sodium citrate in such quantity that the finished ice cream contains not more than 0.2 percent by weight of disodium phosphate or sodium citrate. For the purpose of this part, the term "cocoa" means one or any combination of two or more of the following: cocoa, breakfast cocoa, lowfat cocoa, and the unpulverized residual material prepared by removing part of the fat from ground cacao nibs;
- D. mature fruit or the juice of mature fruit, either of which may be fresh, frozen, canned, concentrated, or partially or wholly dried. The fruit may be whole, shredded, or comminuted; it may be sweetened, thickened with pectin or with one or more of the ingredients named in part 1530.1850, item B, subject to the restriction on the total quantity of such substances in ice cream prescribed in that part, and it may be acidulated with citric acid, ascorbic acid, or phosphoric acid. The fruit is prepared by the removal of pits, seeds, skins, and cores, where such removal is usual in preparing that kind of fruit for consumption as fresh fruit. In the case of fruit or fruit juice from which part of the water is removed, the substances contributing flavor volatilized during water

removal may be condensed and reincorporated in the concentrated fruit or fruit juice. In the case of the citrus fruits the whole fruit, including the peel but excluding the seeds, may be used, and in the case of citrus juice or concentrated citrus juice, coldpressed citrus oil may be added in an amount not exceeding that which would have been obtained if the peel from the whole fruit had been used. For the purposes of this part, the flesh of the coconut shall be considered a fruit;

E. nut meats, which may be roasted, cooked in an edible fat or oil, or preserved in syrup, and which may be salted;

F. malted milk;

G. confectionery. For the purposes of this part, the term "confectionery" means candy, cakes, cookies, and glazed fruits;

H. properly prepared and cooked cereal; and

I. distilled alcoholic beverage, including liqueurs or wine, in an amount not to exceed that required for flavoring the ice cream.

Statutory Authority: *MS s 31.10; 31.101*

1530.1820 OPTIONAL DAIRY INGREDIENTS.

The optional dairy ingredients referred to in part 1530.1800 are: cream, dried cream, plastic cream (sometimes known as concentrated milk fat), butter, butter oil, milk, concentrated milk, evaporated milk, sweetened condensed milk, superheated condensed milk, dried milk, skim milk, concentrated skim milk, evaporated skim milk, condensed skim milk, superheated condensed skim milk, sweetened condensed skim milk, sweetened condensed part-skim milk, nonfat dry milk, sweet cream buttermilk, condensed sweet cream buttermilk, dried sweet cream buttermilk, skim milk that has been concentrated and from which part of the lactose has been removed by crystallization, skim milk in concentrated or dried form which has been modified by treating the concentrated skim milk with calcium hydroxide and disodium phosphate, concentrated cheese whey, and dried cheese whey. Water may be added, or water may be evaporated from the mix. The sweet cream buttermilk and the concentrated sweet cream buttermilk or dried sweet cream buttermilk, when adjusted with water to a total solids content of 8.5 percent, has a titratable acidity of not more than 0.17 percent, calculated as lactic acid. The term "milk" as used in this part means cow's milk. Any concentrated cheese whey and dried cheese whey used contribute not more than 25 percent by weight of the total nonfat milk solids content of the finished food. Dried cheese whey is uniformly light in color, free from brown and black scorched particles, and has an alkalinity of ash, not more than 225 milliliters 0.1N HCl per 100 grams, a bacterial count of not more than 50,000 per gram, and as adjusted with water to a total solids content of 6.5 percent, a titratable acidity of not more than 0.16 percent, calculated as lactic acid. Concentrated cheese whey has an alkalinity of ash, not more than 115 milliliters 0.1N HCl per 100 grams, a bacterial count of not more than 50,000 per gram, and, as adjusted with water to a total solids content of 6.5 percent, a titratable acidity of not more than 0.18 percent, calculated as lactic acid. The modified skim milk, when adjusted with water to a total solids content of nine percent, is substantially free of lactic acid as determined by titration with 0.1N NaOH and it has a pH value in the range of 8.0 to 8.3.

Statutory Authority: *MS s 31.10; 31.101*

1530.1830 OPTIONAL SWEETENING INGREDIENTS.

The optional sweetening ingredients referred to in part 1530.1800 are:

A. sugar (sucrose) or sugar syrup;

B. dextrose;

C. invert sugar (in paste or syrup form);

D. corn syrup, dried corn syrup, glucose syrup, dried glucose syrup;

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- E. maple syrup, maple sugar;
- F. honey;
- G. brown sugar;
- H. malt syrup, maltose syrup, malt extract;
- I. dried malt syrup, dried maltose syrup, dried malt extract;
- J. refiner's syrup;
- K. molasses (other than blackstrap);
- L. lactose; and
- M. fructose.

Statutory Authority: *MS s 31.10: 31.101*

1530.1840 OPTIONAL CASEINATES.

The optional caseinates referred to in part 1530.1800 which may be added to ice cream mix containing not less than 20 percent total milk solids are: casein prepared by precipitation with gums, ammonium caseinate, calcium caseinate, potassium caseinate, and sodium caseinate. Caseinates may be added in liquid or dry form, but must be free of excess alkali.

Statutory Authority: *MS s 31.10: 31.101*

1530.1850 OTHER OPTIONAL INGREDIENTS.

Other optional ingredients referred to in part 1530.1800 are:

A. liquid eggs, frozen eggs, dried eggs, egg yolks, frozen egg yolks, and dried egg yolks. Any egg ingredient used is added to the mix before it is pasteurized. The total weight of egg yolk solids in the finished ice cream from one or a combination of two or more such ingredients is less than the minimum prescribed for frozen custard by part 1530.2010 (1.4 percent);

B. agar-agar, algin (sodium alginate), calcium sulfate, gelatin, gum acacia, guar seed gum, gum karaya, locust bean gum, oat gum, gum tragacanth, carrageenan, salts of carrageenan, furcelleran, salts of furcelleran, lecithin, psyllium seed husk, sodium carboxymethylcellulose. The total weight of the solids of any such ingredient used singly or of any combination of two or more such ingredients used (including any such ingredient and pectin added separately to the fruit ingredient) is not more than 0.5 percent of the weight of the finished ice cream. Such ingredients may be added in admixture with dextrin, propylene glycol, or glycerin;

C. monoglycerides or diglycerides or both of fat-forming fatty acids. The total weight of such ingredients is not more than 0.2 percent of the weight of the finished ice cream. If the preparation used is one having a high proportion of monoglycerides (over 90 percent), it may be preblended with edible fat, but the amount of such fat does not exceed 20 percent by weight of the blend, and the total amount of the blend used does not exceed 0.2 percent of the weight of the finished ice cream;

D. polyoxethylene (20) sorbitan tristearate, polysorbate 80, or both (complying with the provisions of sections 121.1008 and 121.1009 of chapter 4, Federal Food, Drug and Cosmetic Act, including the limit on either used separately or both used in combination of not more than 0.1 percent by weight of the finished frozen dessert);

E. propylene glycol alginate (complying with the provisions of section 121.1015 of chapter 4, Federal Food, Drug and Cosmetic Act, including the limit of not more than 0.5 percent by weight of the finished frozen dessert);

F. microcrystalline cellulose, in a quantity not to exceed 1.5 percent by weight of the finished frozen dessert;

G. when one or more of the optional thickening ingredients in items B and E are used, dioctyl sodium sulfosuccinate (complying with the requirements of the Code of Federal Regulations section 121.1137, Federal Food and Drug

Administration Regulations) may be used in a quantity not in excess of 0.5 percent by weight of such ingredients; and

H. neutral and alkaline mineral salts:

(1) sodium citrate, disodium phosphate, tetrasodium pyrophosphate, sodium Hexametaphosphate, or any combination of two or more of these; but the total quantity of the solids of such ingredients (exclusive of any disodium phosphate or sodium citrate present in chocolate or cacao, as permitted by part 1530.1810, item C) is not more than 0.2 percent by weight of the finished ice cream;

(2) calcium oxide, magnesium oxide, calcium hydroxide, magnesium hydroxide, or any combination of two or more of these; but the total quantity of the solids of such ingredients is not more than 0.04 percent of the weight of the finished ice cream.

Statutory Authority: *MS s 31.10; 31.101*

1530.1860 NAME.

The name of the food is "ice cream."

Statutory Authority: *MS s 31.10; 31.101*

1530.1870 LABEL.

Subpart 1. **Food containing no artificial flavor.** If the food contains no artificial flavor, the label shall bear the common or usual name of the characterizing flavor, e.g., "vanilla," in letters not less than one-half the height of the letters used in the name of the food.

Subp. 2. **Food containing natural characterizing flavor and artificial flavor simulating it, and natural flavor predominates.** If the food contains both a natural characterizing flavor and an artificial flavor simulating it, and if the natural flavor predominates, the label shall bear wherever the name of the food appears so conspicuously as to be easily seen under customary conditions of purchase, the common name of the characterizing flavor, in letters not less than one-half the height of the letters used in the name of the food, followed by the word "flavored," in letters not less than one-half the height of the letters in the name of the characterizing flavor, e.g., "VANILLA flavored" or "PEACH flavored" or "VANILLA flavored and STRAWBERRY flavored."

Subp. 3. **Food containing natural characterizing flavor and artificial flavor simulating it, and artificial flavor predominates, or artificial flavor is used alone.** If the food contains both a natural characterizing flavor and an artificial flavor simulating it, and if the artificial flavor predominates, or if artificial flavor is used alone, the label shall bear, wherever the name of the food appears so conspicuously as to be easily seen under customary conditions of purchase, the common name of the characterizing flavor in letters not less than one-half the height of the letters used in declaring the name of the food, preceded by "artificial" or "artificially flavored" in letters not less than one-half the height of the letters in the name of the characterizing flavor, e.g., "artificial VANILLA" or "artificially flavored STRAWBERRY" or "artificially flavored VANILLA and artificially flavored STRAWBERRY."

Statutory Authority: *MS s 31.10; 31.101*

1530.1880 ARTIFICIAL FLAVOR ADDED.

If the food is subject to the requirements of part 1530.1870, subpart 2 or if it contains any artificial flavor not simulating the characterizing flavor, the label shall also bear the words "artificial flavor added" or "artificial _____ flavor added," the blank being filled with the common name of the flavor simulated by the artificial flavor in letters of the same size and prominence as the words that precede and follow it. Wherever the name of the characterizing flavor appears on the label so conspicuously as to be easily seen under customary conditions of

purchase, the words prescribed by this part shall immediately and conspicuously precede or follow such name, in a size reasonably related to the prominence of the name of the characterizing flavor and in any event the size of the type is not less than six-point on packages containing less than one pint, not less than eight-point on packages containing at least one pint but less than one-half gallon, not less than ten-point on packages containing at least one-half gallon but less than one gallon, and not less than 12-point on packages containing one gallon or over; provided, however, that where the characterizing flavor and a trademark or brand are presented together, other written, printed, or graphic matter that is a part of or is associated with the trademark or brand may intervene if the required words are in such relationship with the trademark or brand as to be clearly related to the characterizing flavor; and provided further, that if the finished product contains more than one flavor of ice cream subject to the requirements of this part, the statements required by this part need appear only once in each statement of characterizing flavors present in such ice cream, e.g., "VANILLA flavored, CHOCOLATE and STRAWBERRY flavored, artificial flavors added."

Statutory Authority: *MS s 31.10; 31.101*

1530.1890 FOOD CONTAINING NATURAL CHARACTERIZING FLAVOR AND ARTIFICIAL FLAVOR SIMULATING CHARACTERIZING FLAVOR.

If the food contains both a natural characterizing flavor and an artificial flavor simulating the characterizing flavor, any reference to the natural characterizing flavor shall, except as otherwise authorized by parts 1530.1860 to 1530.1900, be accompanied by a reference to the artificial flavor, displayed with substantially equal prominence, e.g., "strawberry and artificial strawberry flavor."

Statutory Authority: *MS s 31.10; 31.101*

1530.1900 PREDOMINANCE OF ARTIFICIAL FLAVOR SIMULATING CHARACTERIZING FLAVOR.

An artificial flavor simulating the characterizing flavor shall be deemed to predominate:

A. in the case of vanilla beans or vanilla extract used in combination with vanillin, if the amount of vanillin used is greater than one ounce per 13.35 ounces of vanilla beans or than one unit of vanilla constituent, as that term is defined in section 22.1(c) of chapter 4, Federal Food, Drug and Cosmetic Act;

B. in the case of fruit or fruit juice used in combination with artificial fruit flavor, if the quantity of the fruit or fruit juice used is such that, in relation to the weight of the finished ice cream, the weight of the fruit or fruit juice, as the case may be (including water necessary to reconstitute partially or wholly dried fruits or fruit juices to their original moisture content) is less than two percent in the case of citrus ice cream, six percent in the case of berry or cherry ice cream, and ten percent in the case of ice cream prepared with other fruits;

C. in the case of nutmeats used in combination with artificial nut flavor, if the quantity of nutmeats used is such that, in relation to the finished ice cream, the weight of the nutmeats is less than two percent;

D. in the case of two or more fruits or fruit juices, or nutmeats, or both used in combination with artificial flavors simulating the natural flavors and dispersed throughout the food, if the quantity of any fruit or fruit juice or nutmeat is less than one-half the applicable percentage specified in part 1530.1900, item B or C, e.g., five percent banana plus one percent almond would qualify for "BANANA-ALMOND flavored"; five percent pineapple plus three percent strawberry would qualify for "PINEAPPLE-STRAWBERRY flavored"; three percent raspberry plus one percent orange would qualify for "RASPBERRY-ORANGE flavored."

If two or more flavors of ice cream are distinctively combined in one package, e.g. "Neapolitan" ice cream, the applicable provisions of parts 1525.1800 to 1525.2000 shall govern each flavor of ice cream comprising the combination.

Statutory Authority: *MS s 31.10; 31.101*

1530.2000 CROSS REFERENCES.

Because of the cross reference employed, the amendments ordered in the standard for ice cream (parts 1530.1800 to 1530.2000) become applicable to the standards for frozen custard (part 1530.2010) and ice milk (part 1530.2020).

Statutory Authority: *MS s 31.10; 31.101*

1530.2010 FROZEN CUSTARD, FRENCH ICE CREAM, FRENCH CUSTARD ICE CREAM.

Frozen custard, French ice cream, French custard ice cream conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for ice cream by parts 1530.1800 to 1530.2000, except that one or more of the optional egg ingredients permitted by part 1530.1850, item A are used in such quantity that the total weight of egg yolk solids therein is not less than 1.4 percent of the weight of the finished frozen custard; provided, however, that when the ingredients named in part 1530.1810, items C to H are used, the content of egg yolk solids may be reduced in proportion to the bulky ingredient or ingredients added, under the conditions prescribed by part 1530.1800 for reduction in milk fat and total milk solids; but in no case is the content of egg yolk solids less than 1.12 percent.

Statutory Authority: *MS s 31.10; 31.101*

1530.2020 ICE MILK.

Ice milk is the food prepared from the same ingredients and in the same manner prescribed in parts 1530.1800 to 1530.2000 for ice cream and complies with all the provisions of parts 1530.1800 to 1530.2000 (including the requirements for label statement of optional ingredients), except that:

A. its content of milk fat is more than two percent but not more than seven percent;

B. its content of total milk solids is not less than 11 percent;

C. caseinates may be added when the content of total milk solids is not less than 11 percent;

D. the provision for reduction in milk fat and total milk solids from the addition of bulky ingredients in part 1530.1800 does not apply;

E. the quantity of food solids per gallon is not less than 1.3 pounds;

F. when any artificial coloring is used in ice milk, directly or as a component of any other ingredient, the label shall bear the statement "artificially colored," "artificial coloring added," "with added artificial color," or "____, an artificial color added," the blank being filled in with the common or usual name of the artificial color; or in lieu thereof, in case the artificial color is a component of another ingredient, "____ artificially colored";

G. the name of the food is "ice milk"; and

H. if both artificial color and artificial flavorings are used, the label statements may be combined.

Statutory Authority: *MS s 31.10; 31.101*

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1530.2030 FRUIT SHERBETS.

Fruit sherbets are the foods each of which is prepared by freezing, while stirring, a mix composed of one or more of the optional characterizing fruit ingredients specified in part 1530.2040 and one or more of the optional dairy ingredients specified in part 1530.2050, sweetened with one or more of the optional sweetening ingredients specified in part 1530.2060. One or more of the optional ingredients specified in part 1530.2070 may be used, subject to the conditions hereinafter set forth. The mix of combined dairy ingredients with or without other ingredients is pasteurized. The titratable acidity of the finished fruit sherbet, calculated as lactic acid, is not less than 0.35 percent. The mix with or without added water may be seasoned with salt, and may be homogenized. The optional dairy ingredients used and the content of milk fat and nonfat milk solids therein are such that the weight of milk fat is not less than one percent and not more than two percent and the weight of total milk solids is not less than two percent and not more than five percent of the weight of the finished fruit sherbet. The optional caseinates specified in part 1530.2070, item E are not deemed to be milk solids. The finished fruit sherbet weighs not less than six pounds to the gallon.

Statutory Authority: *MS s 31.10; 31.101*

1530.2040 OPTIONAL FRUIT CHARACTERIZING INGREDIENTS.

The optional fruit characterizing ingredients referred to in part 1530.2030 are any mature fruit or the juice of any mature fruit. The fruit or fruit juice used may be fresh, frozen, canned, concentrated, or partially or wholly dried. The fruit may be thickened with pectin or other of the optional ingredients named in part 1530.2070, item B, subject to the restriction on the total quantity of such substances in fruit sherbets prescribed in that item. The fruit is prepared by the removal of pits, seeds, skins, and cores, where such removal is usual in preparing that kind of fruit for consumption as fresh fruit. The fruit may be screened, crushed, or otherwise comminuted. It may be acidulated with citric acid, ascorbic acid, or phosphoric acid. In the case of concentrated fruit or fruit juices, from which part of the water is removed, substances contributing flavor volatilized during water removal may be condensed and reincorporated in the concentrated fruit or fruit juice. In the case of citrus fruits, the whole fruit, including the peel but excluding the seeds, may be used, and in the case of citrus juice or concentrated citrus juices, cold-pressed citrus oil may be added thereto in an amount not exceeding that which would have been obtained if the whole fruit had been used. The quantity of fruit ingredients used is such that, in relation to the weight of the finished sherbet, the weight of fruit or fruit juice, as the case may be (including water necessary to reconstitute partially or wholly dried fruits or fruit juices to their original moisture content), is not less than two percent in the case of citrus sherbets, six percent in the case of berry sherbets, and ten percent in the case of sherbets prepared with other fruits. For the purposes of this part, tomatoes and rhubarb are considered as kinds of fruit.

Statutory Authority: *MS s 31.10; 31.101*

1530.2050 OPTIONAL DAIRY INGREDIENTS.

The optional dairy ingredients referred to in part 1530.2030 are: cream, dried cream, plastic cream (sometimes known as concentrated milk fat), butter, butter oil, milk, concentrated milk, evaporated milk, superheated condensed milk, sweetened condensed milk, dried milk, skim milk, concentrated skim milk, evaporated skim milk, condensed skim milk, superheated condensed skim milk, sweetened condensed skim milk, sweetened condensed part-skim milk, nonfat dry milk, sweet cream buttermilk, condensed sweet cream buttermilk, dried sweet cream buttermilk, skim milk that has been concentrated and from which part of the lactose has been removed by crystallization, concentrated cheese whey, and

dried cheese whey. Water may be added, or water may be evaporated from the mix. The sweet cream buttermilk and the concentrated sweet cream buttermilk or dried sweet cream buttermilk, when adjusted with water to a total solids content of 8.5 percent, has a titratable acidity of not more than 0.17 percent, calculated as lactic acid. The term "milk" as used in this part means cow's milk. Dried cheese whey is uniformly light in color, free from brown and black scorched particles, and has an alkalinity of ash, not more than 225 milliliters 0.1N HCl per 100 grams, a bacterial count of not more than 50,000 per gram, and, as adjusted with water to a total solids content of 6.5 percent, a titratable acidity of not more than 0.16 percent calculated as lactic acid. Concentrated cheese whey has an alkalinity of ash, not more than 115 milliliters 0.1N HCl per 100 grams, a bacterial count of not more than 50,000 per gram, and, as adjusted with water to a total solids content of 6.5 percent, a titratable acidity of not more than 0.18 percent, calculated as lactic acid.

Statutory Authority: *MS s 31.10; 31.101*

1530.2060 OPTIONAL SWEETENING INGREDIENTS.

The optional sweetening ingredients referred to in part 1530.2030 are: sugar (sucrose), dextrose, invert sugar (paste or syrup), glucose syrup, dried glucose syrup, corn syrup, dried corn syrup, malt syrup, malt extract, dried malt syrup, dried malt extract, maltose syrup, dried maltose syrup.

Statutory Authority: *MS s 31.10; 31.101*

1530.2070 OTHER OPTIONAL INGREDIENTS.

Other optional ingredients referred to in part 1530.2030 are:

A. liquid eggs, frozen eggs, dried eggs, egg yolks, frozen yolks, dried yolks; but the weight of egg yolk solids therein is less than 0.5 percent of the weight of the finished fruit sherbet;

B. agar-agar, algin (sodium alginate), calcium sulfate, egg white, gelatin, gum acacia, guar seed gum, gum karaya, locust bean gum, oat gum, gum tragacanth, hydroxypropyl methylcellulose, carrageenan, salts of carrageenan, furcelleran, salts of furcelleran, lecithin, pectin, psyllium seed husk, sodium carboxymethylcellulose. The total weight of the solids of any such ingredient used singly or of any combination of two or more such ingredients used (including any such ingredient added separately to the fruit ingredient) is not more than 0.5 percent of the weight of the finished fruit sherbet. Such ingredients may be added in admixture with dextrin, propylene glycol, or glycerin;

C. monoglycerides or diglycerides or both of fat-forming fatty acids; the total weight of such ingredients is not more than 0.2 percent of the weight of the finished fruit sherbet; if the preparation used is one having a high proportion of monoglycerides (over 90 percent), it may be preblended with edible fat, but the amount of such fat does not exceed 20 percent by weight of the blend, and the total amount of the blend used does not exceed 0.2 percent of the weight of the finished fruit sherbet;

D. polyoxyethylene (20) sorbitan tristearate, polysorbate 80, or both (complying with the provisions of sections 121.1008 and 121.1009 of chapter 4, Federal Food, Drug and Cosmetic Act, including the limit on either used separately or both used in combination of not more than 0.1 percent by weight of the finished frozen dessert);

E. propylene glycol alginate (complying with the provision of section 121.1015 of chapter 4, Federal Food, Drug and Cosmetic Act, including the limit of not more than 0.5 percent of weight of the finished frozen dessert);

F. citric acid, tartaric acid, malic acid, lactic acid, ascorbic acid, phosphoric acid, or any combination of two or more of these in such quantity as seasons the finished food;

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G. casein prepared by precipitation with gums, ammonium caseinate, calcium caseinate, potassium caseinate, sodium caseinate;

H. any natural food flavoring;

I. any artificial flavoring; and

J. coloring, including artificial coloring.

Statutory Authority: *MS s 31.10; 31.101*

1530.2080 NAME.

The name of each such fruit sherbet is "_____ sherbert," the blank being filled in with the common name of the fruit or fruits from which the fruit ingredients used are obtained. When the names of two or more fruits are included, such names shall be arranged in order of predominance, if any, by weight of the respective fruit ingredients used.

Statutory Authority: *MS s 31.10; 31.101*

1530.2090 LABELING FOR OPTIONAL INGREDIENTS ARTIFICIAL COLORING OR ARTIFICIAL FLAVORING.

When the optional ingredients artificial coloring or artificial flavoring are used in fruit sherbet they shall be named on the labels as follows: the label shall designate artificial coloring by the statement "artificially colored," "artificial coloring added," "with added artificial coloring," or "_____ an artificial color added," the blank being filled in with the name of the artificial coloring used. The label shall designate artificial flavoring by the statement "artificially flavored," "artificial flavoring added," "with added artificial flavoring," or "_____ an artificial flavor added," the blank being filled in with the name of the artificial flavoring used.

Where one or more of the optional ingredients artificial coloring or artificial flavoring are used and there appears on the label any representation as to the fruit or fruits in the sherbet, such representation shall be immediately and conspicuously accompanied by appropriate label statements as prescribed in the first paragraph, showing the optional ingredients used.

Statutory Authority: *MS s 31.10; 31.101*

1530.2100 LABELING FOR ARTIFICIAL FLAVORING ADDED AS COMPONENT OF SOME OTHER INGREDIENT.

Whenever artificial flavoring is not added as such but as a component of some other ingredient, the label shall include the statement "_____ artificially flavored," the blank being filled in with the name of such other ingredient.

Statutory Authority: *MS s 31.10; 31.101*

1530.2110 COMBINING LABEL STATEMENTS.

Label statements may be combined, as for example, "with added artificial flavoring and artificial coloring."

Statutory Authority: *MS s 31.10; 31.101*

1530.2120 POSITION OF OPTIONAL INGREDIENTS STATEMENT ON LABEL.

Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statements specified in parts 1530.2030 to 1530.2100 showing the optional ingredients used shall immediately and conspicuously precede or follow such name without intervening written, printed, or graphic matter.

Statutory Authority: *MS s 31.10; 31.101*

1530.2130 WATER ICES.

Water ices are the foods, each of which is prepared by freezing, while stirring, a mix composed of one or more of the optional characterizing fruit ingredients specified in part 1530.2140, sweetened with one or more of the optional sweetening ingredients specified in part 1530.2150. One or more of the optional ingredients specified in part 1530.2160 may be used, subject to the conditions hereinafter set forth. The titratable acidity of the finished water ice, calculated as lactic acid, is not less than 0.35 percent. The mix, with or without added water, may be seasoned with salt, and may be homogenized. The finished water ice weighs not less than six pounds to the gallon.

Statutory Authority: *MS s 31.10; 31.101*

1530.2140 OPTIONAL FRUIT INGREDIENTS.

The optional fruit ingredients referred to in part 1530.2130 are any mature fruit or the juice of any mature fruit. The fruit or fruit juice used may be fresh, frozen, canned, concentrated, or partially or wholly dried. The fruit may be thickened with pectin or other of the optional ingredients named in part 1530.2160, item A subject to the restriction on the total quantity of such substances in water ices prescribed in that item. The fruit is prepared by the removal of pits, seeds, skins, and cores where such removal is usual in preparing that kind of fruit for consumption as fresh fruit. The fruit may be screened, crushed, or otherwise comminuted. It may be acidulated with citric acid, ascorbic acid, or phosphoric acid. In the case of fruit or fruit juices from which part of the water is removed, substances contributing flavor volatilized during water removal may be condensed and reincorporated in the concentrated fruit or fruit juice. In the case of citrus fruits, the whole fruit including the peel but excluding the seeds may be used, and in the case of citrus juice or concentrated citrus juices, cold-pressed citrus oil may be added thereto in an amount not exceeding that which would have been obtained if the whole fruit had been used. The quantity of fruit ingredients used is such that in relation to the weight of the finished water ice, the weight of fruit or fruit juice as the case may be (including water necessary to reconstitute partially or wholly dried fruits or fruit juices to their original moisture content) is not less than two percent in the case of citrus ices, six percent in the case of berry ices, and ten percent in the case of ices prepared with other fruits.

Statutory Authority: *MS s 31.10; 31.101*

1530.2150 OPTIONAL SWEETENING INGREDIENTS.

The optional sweetening ingredients referred to in part 1530.2130 are: sugar (sucrose), dextrose, invert sugar (paste or syrup), glucose syrup, dried glucose syrup, corn syrup, dried corn syrup, malt syrup, malt extract, dried malt syrup, dried malt extract, maltose syrup, dried maltose syrup.

Statutory Authority: *MS s 31.10; 31.101*

1530.2160 OTHER OPTIONAL INGREDIENTS.

Other optional ingredients referred to in part 1530.2130 are:

A. agar-agar, algin (sodium alginate), egg white, gelatin, gum acacia, guar seed gum, gum karaya, locust bean gum, oat gum, gum tragacanth, hydroxypropyl methylcellulose, carrageenan, salts of carrageenan, furcelleran, salts of furcelleran, propylene glycol alginate, pectin, psyllium seed husk, sodium carboxymethylcellulose. The total weight of the solids of any such ingredient used singly or of any combination of two or more such ingredients used (including any such ingredient added separately to the fruit ingredient) is not more than 0.5 percent of the weight of the finished water ice. Such ingredients may be added in admixture with dextrin, propylene glycol, or glycerin;

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B. citric acid, tartaric acid, malic acid, lactic acid, ascorbic acid, phosphoric acid, or any combination of two or more of these in such quantity as seasons the finished food;

C. any natural flavoring;

D. any artificial flavoring; and

E. coloring, including artificial coloring.

Statutory Authority: *MS s 31.10; 31.101*

1530.2170 NAME.

The name of each such water ice is "_____ ice," the blank being filled in with the common name of the fruit or fruits from which the fruit ingredient used is obtained. When the names of two or more fruits are included, such names shall appear in the order of predominance, if any, by weight of the respective fruit ingredients used.

Statutory Authority: *MS s 31.10; 31.101*

1530.2180 OPTIONAL INGREDIENTS ARTIFICIAL COLORING AND ARTIFICIAL FLAVORING.

When the optional ingredients artificial coloring and artificial flavoring are used in water ices they shall be named on the labels as follows: the label shall designate artificial coloring by the statement "artificially colored," "artificial coloring added," "with added artificial coloring," or "_____ an artificial color added," the blank being filled in with the name of the artificial coloring used; the label shall designate artificial flavoring by the statement "artificially flavored," "artificial flavoring added," "with added artificial flavoring" or "_____ an artificial flavor added," the blank being filled in with the name of the artificial flavoring used.

Statutory Authority: *MS s 31.10; 31.101*

1530.2190 COMBINING LABEL STATEMENTS.

Label statements may be combined, as for example, "flavoring and artificial coloring added."

Statutory Authority: *MS s 31.10; 31.101*

1530.2200 POSITION OF OPTIONAL INGREDIENTS STATEMENTS ON LABEL.

Where one or more of the optional ingredients artificial coloring or artificial flavoring are used and there appears on the labeling any representation as to the fruit or fruits in the ice, such representation shall be immediately and conspicuously accompanied by appropriate label statements as prescribed in part 1530.2180, showing the optional ingredients used.

Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statements set out in parts 1530.2130 to 1530.2200 showing the optional ingredients used shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter.

Statutory Authority: *MS s 31.10; 31.101*

1530.2210 FROZEN MALTED MILK.

"Frozen malted milk" is the semifrozen food prepared from the same ingredients and in the same manner prescribed in parts 1530.1800 to 1530.2000 for ice cream and complies with the same provisions of parts 1530.1800 to 1530.2000 (including the requirements for label statement of optional ingredients), except that:

A. it contains not less than seven percent by weight of milk fat;

- B. it contains not less than 14 percent by weight of total milk solids;
- C. it contains not less than three percent by weight of malted milk;
- D. it contains not less than 1-3/10 pounds of total food solids per gallon; and
- E. the name of the food is "frozen malted milk."

Statutory Authority: *MS s 31.10; 31.101*

1530.2220 FROZEN MILK SHAKE.

"Frozen milk shake" is the semifrozen food prepared from the same ingredients and in the same manner as prescribed in part 1530.2020 for ice milk and complies with all the provisions of part 1530.2020 except that:

- A. it shall be sold or served only to the consumer and only in a semifrozen state; and
- B. the name of the food is "frozen milk shake."

Statutory Authority: *MS s 31.10; 31.101*

1530.2230 FROZEN MALT.

"Frozen malt" is the semifrozen food prepared from the same ingredients and in the same manner as prescribed in part 1530.2020 for ice milk and complies with all the provisions of part 1530.2020 except that:

- A. it shall be sold or served only to the consumer and only in a semifrozen state;
- B. it shall contain malt flavoring; and
- C. the name of the food is "frozen malt."

Statutory Authority: *MS s 31.10; 31.101*

1530.2240 IDENTIFICATION OF MANUFACTURER.

The number or code permitted by Minnesota Statutes 1961, section 32.62, subdivision 1, paragraph (5), as amended by Laws of Minnesota 1965, chapter 119, section 5, in lieu of the name and address of the manufacturer of mix, ice cream mix, mix base, ice cream mix base, or frozen foods when a distributor's name and address appears on the label of the package or container in which such mix, ice cream mix, mix base, ice cream mix base, or frozen foods are prepackaged for sale, shall conform to the following:

- A. The identification number or code shall consist of the number from the IBM Numerical Code of States representing the state of origin followed by a hyphen and the plant number corresponding to a permanent list of numbers assigned by the state regulatory agency having jurisdiction.
- B. Such number or code may be printed, embossed, or stamped on the package label.
- C. If the manufacturer of the mix, ice-cream mix, mix base, ice-cream mix base, or frozen food cannot be identified because of the failure to use or misuse of the identity code, the product shall be deemed to be misbranded.

Statutory Authority: *MS s 31.10; 31.101*

1530.2250 FROZEN DAIRY DESSERT.

Frozen dairy dessert is the frozen food prepared from the same ingredients and in the same manner prescribed in parts 1530.1800 to 1530.2000 for ice cream and complies with all the provisions of parts 1530.1800 to 1530.2000, including the label statement of optional ingredients, except that:

- A. its content of milk fat is two percent or less;
- B. its content of total milk solids is not less than 11 percent;
- C. caseinates may be added when the content of total milk solids is not less than 11 percent;

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D. the provision for reduction of milk fat and total solids from the addition of bulky ingredients does not apply;

E. the quantity of food solids per gallon of the finished product is not less than one pound;

F. when any artificial coloring is used in frozen dairy dessert, directly or as a component of any other ingredient, the label shall bear the statement "artificially colored," "artificial coloring added," "with added artificial color," " — an artificial color added," the blank being filled with the common or usual name of the artificial color; or in lieu thereof, in case the artificial color is a component of another ingredient, "_____ artificially colored";

G. the name of the food is "frozen dairy dessert"; and

H. if both artificial color and flavorings are used, the label statements may be combined.

Statutory Authority: *MS s 31.10; 31.101*

1530.2260 PASTEURIZATION.

Pasteurization is hereby defined as the process of heating every particle of mix for frozen food in equipment which is properly operated and approved by the commissioner to a temperature of not less than 155 degrees Fahrenheit, and holding it continuously at or above this temperature for not less than 30 minutes, or to not less than 175 degrees Fahrenheit, and holding it continuously at or above this temperature for not less than 25 seconds, in equipment which is properly operated and approved by the commissioner.

Statutory Authority: *MS s 31.10; 31.101*

1530.2270 COOLING.

Immediately after pasteurization, frozen food mix shall be cooled in equipment which is properly operated and approved by the commissioner to a temperature of 45 degrees Fahrenheit, or lower, and held at or below that temperature until frozen.

Statutory Authority: *MS s 31.10; 31.101*

1530.2280 BACTERIAL COUNT, COLIFORM COUNT.

At no time after pasteurization shall frozen foods or mix or reconstituted mix base therefor have a bacterial count exceeding 50,000 bacteria per gram, standard plate count, or a coliform count exceeding ten coliforms per gram in more than two of any four consecutive samples taken on separate days. Compliance shall be determined in accordance with "Standard Methods for the Examination of Dairy Products," eleventh edition, 1960, published by the American Public Health Association, Inc., 1790 Broadway, New York, New York.

Statutory Authority: *MS s 31.10; 31.101*

1530.2290 ARTIFICIAL SWEETENERS.

Frozen foods and mixes therefor may be sweetened with saccharin, sulfamate, or other artificial sweetening product approved by the commissioner, when such artificial sweeteners are completely substituted for sugar in frozen foods and mixes therefor.

Statutory Authority: *MS s 31.10; 31.101*

1530.2300 CONTAINER LABEL FOR ARTIFICIALLY SWEETENED FROZEN FOOD OR MIX.

The container label for such artificially sweetened frozen food or mix therefor shall, in addition to other required information, be clearly and plainly labeled with the following information:

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A. "for dietary purposes" or "for dietetic use" or "artificially sweetened" or substantially similar statements approved by the commissioner, and a statement that the product contains saccharin, sulfamate, or other approved artificial sweetener, as for example, "contains _____ saccharin (or name of other approved artificial sweetener as the case may be), a non-nutritive, artificial sweetener for use by persons who must restrict their intake of ordinary sweets," the blank to be filled in with the percent by weight of the artificial sweetener used;

B. the percent by weight of protein, fat, and available carbohydrates in such food; and

C. the number of available calories supplied by a specified quantity of such food.

Statutory Authority: *MS s 31.10; 31.101*

1530.2310 FROZEN VEGETABLE FAT DESSERT.

"Frozen vegetable fat dessert" is a frozen food which, among its ingredients, contains whey, concentrated whey, or dry whey (whether lactose and minerals have been partially or totally removed therefrom by mechanical or chemical means) or caseinates, to which has been added or with which has been blended or compounded any vegetable fat or oil or combination of vegetable fats or oils. It is prepared or frozen as ice cream is customarily prepared or frozen and is in imitation or semblance of ice cream. Frozen vegetable fat dessert shall not include among its ingredients milk, cream, skimmed milk, or any combination thereof (whether or not condensed, evaporated, concentrated, frozen, powdered, dried, or desiccated) or milk fat.

Statutory Authority: *MS s 31.10; 31.101*

1530.2320 WHEY.

"Whey" is the product remaining after the removal of fat and casein from cow's milk as in the process of cheese making.

Statutory Authority: *MS s 31.10; 31.101*

1530.2330 CONCENTRATED WHEY.

"Concentrated whey" is whey which has an alkalinity of ash not more than 115 milliliters 0.1N HCl per 100 grams, a bacterial count of not more than 50,000 per gram, and, as adjusted with water to a total solids content of 6.5 percent, a titratable acidity of not more than 0.18 percent calculated as lactic acid.

Statutory Authority: *MS s 31.10; 31.101*

1530.2340 DRY WHEY.

"Dry whey" is whey which is uniformly light in color, free from brown and black scorched particles, and has an alkalinity of ash not more than 225 milliliters 0.1N HCl per 100 grams, a bacterial count of not more than 50,000 per gram, and as adjusted with water to a total solids content of 6.5 percent, a titratable acidity of not more than 0.6 percent calculated as lactic acid.

Statutory Authority: *MS s 31.10; 31.101*

1530.2350 CASEINATES.

"Caseinates" include casein prepared by precipitation with gums, ammonium caseinates, calcium caseinates, potassium caseinate, and sodium caseinate. Caseinate may be used in liquid or dry form, but must be free of excess alkali.

Statutory Authority: *MS s 31.10; 31.101*

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1530.2360 MANUFACTURING REQUIREMENTS.

The mix shall be pasteurized and cooled in accordance with Minnesota Statutes, section 32.64, and parts 1530.2260 to 1530.2280, and may include one or more of the optional characterizing ingredients specified in part 1530.1810, one or more of the optional sweetening ingredients specified in part 1530.1830, and one or more of the optional ingredients specified in part 1530.1850. The mix may be seasoned with salt, and may be homogenized. The finished product shall contain not less than 1.6 pounds of total solids per gallon and shall not weigh less than 4.5 pounds per gallon. Artificial flavoring in any chocolate, cocoa, confectionery, or other ingredient used is an optional ingredient of the finished product. Coloring, including artificial coloring, may be added. All requirements of Minnesota Statutes, sections 32.55 to 32.645, and the rules adopted pursuant thereto, shall be complied with insofar as applicable.

Statutory Authority: *MS s 31.10; 31.101*

1530.2370 NAME.

The distinctive name of the frozen food product is "frozen vegetable fat dessert."

Statutory Authority: *MS s 31.10; 31.101*

1530.2380 LABEL COMPLIANCE.

Before any frozen vegetable fat dessert is sold, transported, used, offered for sale or transportation or is in one's possession with the intent to use, sell, or transport within this state, its package, container, or receptacle bearing its label shall be submitted to the commissioner of agriculture for approval as being in compliance with parts 1530.2310 to 1530.2410.

Statutory Authority: *MS s 31.10; 31.101*

1530.2390 DATA OR INFORMATION ON LABEL.

In addition to compliance with the applicable provisions of parts 1550.0020 to 1550.0920, the label of any frozen dessert shall plainly exhibit to the purchaser the following data or information:

- A. list of ingredients in descending order of predominance;
- B. the distinctive name of the vegetable fat or oil and the content of vegetable fat or oil by percentage of weight of the finished product, e.g. soybean oil five percent by weight; if the vegetable fat or oil is hydrogenated, the name of the oil or fat shall be preceded by the words "hydrogenated," "partially hydrogenated," or "hardened," as the case may be. If the product contains a combination of two or more vegetable fats or oils, they shall be listed in order of predominance, e.g. coconut oil five percent by weight, safflower oil, 2.5 percent by weight;
- C. statement of net contents;
- D. name and address of the manufacturer or distributor; when the name and address of the distributor is given on the label, the name and address of the manufacturer shall also be given or in lieu thereof an identification number or code assigned by the commissioner of agriculture to represent such manufacturer.

Statutory Authority: *MS s 31.10; 31.101*

1530.2400 INFORMATION AS TO FLAVOR OF FROZEN VEGETABLE FAT DESSERT.

Information as to flavor of the frozen vegetable fat dessert shall be contained on the label in accordance with the provisions of parts 1530.1870 to 1530.2000.

Fictitious, trade, or brand names may be used on the label, but no frozen vegetable fat dessert may be manufactured, sold, or exchanged under the name

of any dairy product including, but not limited to milk, cream, sour cream, butter cream, skimmed milk, ice cream, whipped cream, flavored milk or skim milk drink, dried or powdered milk, cheese, cream cheese, cottage cheese, creamed cottage cheese, ice cream mix, sherbet, condensed milk, evaporated milk, or concentrated milk, or as a labeled imitation thereof. Notwithstanding any other rule to the contrary, the words "imitation ice cream" shall not appear on the label or any part of the package, container, or receptacle.

Statutory Authority: *MS s 31.10; 31.101*

1530.2410 IDENTIFICATION OF FROZEN VEGETABLE FAT DESSERT SERVED IN PUBLIC PLACES.

Subpart 1. Frozen vegetable fat dessert sold, offered, or exposed for sale in package form. When frozen vegetable fat dessert is sold, offered, or exposed for sale in a package form, there shall be conspicuously printed thereon in ink upon a contrasting background, in type not less than 24-point Gothic capitals, the words "frozen vegetable fat dessert" or "frozen dessert" with the words "a vegetable fat product" appearing immediately below in letters not less than one-half of the size of the letters used in the words "frozen dessert." When offered for sale at retail in package form, such packages shall be separately displayed from and shall not be commingled with other frozen foods.

Subp. 2. Frozen vegetable fat dessert served to consumer. When frozen vegetable fat dessert is served to a consumer, the owner, operator, or manager of such retail establishment shall have signs conspicuously posted on the inside of such retail establishment with lettering large enough to be distinctly seen and read containing the words "frozen vegetable fat dessert sold here" or "frozen dessert, a vegetable fat product, sold here." Such signs shall remain posted so long as frozen vegetable fat dessert is sold or offered for sale to consumers. If menus are made available to the consumer for ordering food, the required lettering may appear on the menus in lieu of posting the required signs.

Statutory Authority: *MS s 31.10; 31.101*