

**CHAPTER 1555**  
**DEPARTMENT OF AGRICULTURE**  
**FOOD DEFINITIONS AND STANDARDS**

	<b>ORGANIC FOOD</b>		
1555.0005	DEFINITIONS.	1555.0390	SELF-RISING FLOUR, SELF-RISING WHITE FLOUR, SELF-RISING WHEAT FLOUR.
1555.0006	ORGANIC FOOD REQUIREMENTS.	1555.0400	OPTIONAL BLEACHING INGREDIENTS LABELING.
1555.0007	EXCEPTIONS.	1555.0410	METHOD.
1555.0008	TREATED SEED, TRANSPLANTS AND PROPAGATING PARTS.	1555.0420	ENRICHED SELF-RISING FLOUR.
1555.0009	RECORDS.	1555.0430	PHOSPHATED FLOUR, PHOSPHATED WHITE FLOUR, PHOSPHATED WHEAT FLOUR.
1555.0010	INSPECTION AUTHORITY.	1555.0440	WHOLE WHEAT FLOUR, GRAHAM FLOUR, ENTIRE WHEAT FLOUR.
1555.0012	PROHIBITIONS.	1555.0450	LABEL STATEMENT OF OPTIONAL BLEACHING INGREDIENT.
	<b>CACAO PRODUCTS</b>	1555.0460	DETERMINATION OF MOISTURE.
1555.0020	CACAO NIBS, COCOA NIBS, CRACKED COCOA.	1555.0470	METHOD.
1555.0030	OPTIONAL ALKALI INGREDIENTS.	1555.0480	BROMATED WHOLE WHEAT FLOUR.
1555.0040	CHOCOLATE LIQUOR, CHOCOLATE, BAKING CHOCOLATE, BITTER CHOCOLATE, COOKING CHOCOLATE, CHOCOLATE COATING, BITTER CHOCOLATE COATING.	1555.0490	WHOLE DURUM WHEAT FLOUR.
1555.0050	OPTIONAL INGREDIENTS.	1555.0500	CRUSHED WHEAT, COARSE GROUND WHEAT.
1555.0060	LABEL STATEMENT OF OPTIONAL INGREDIENTS.	1555.0510	CRACKED WHEAT.
1555.0070	OPTIONAL ALKALI INGREDIENT.	1555.0520	FARINA.
1555.0080	BREAKFAST COCOA, HIGH FAT COCOA.	1555.0530	METHOD.
1555.0090	OPTIONAL INGREDIENTS.	1555.0540	ENRICHED FARINA.
1555.0100	LABEL STATEMENT OF OPTIONAL INGREDIENTS.	1555.0550	LABEL STATEMENT OF OPTIONAL INGREDIENT.
1555.0110	OPTIONAL ALKALI INGREDIENT.	1555.0560	SEMOLINA.
1555.0120	COCOA, MEDIUM FAT COCOA.		<b>CORN FLOUR AND RELATED PRODUCTS</b>
1555.0130	LOWFAT COCOA.	1555.0570	WHITE CORN MEAL.
1555.0140	SWEET CHOCOLATE, SWEET CHOCOLATE COATING.	1555.0580	DETERMINATION OF MOISTURE, FAT, AND CRUDE FIBER.
1555.0160	OPTIONAL SACCHARINE INGREDIENTS.	1555.0590	METHOD.
1555.0170	DEFINITIONS.	1555.0600	YELLOW CORN MEAL.
1555.0180	ALTERNATE NAMES FOR SWEET CHOCOLATE.	1555.0610	BOLTED WHITE CORN MEAL.
1555.0190	LABEL STATEMENT OF OPTIONAL INGREDIENTS.	1555.0620	BOLTED YELLOW CORN MEAL.
1555.0200	OPTIONAL ALKALI INGREDIENT.	1555.0630	DEGERMINATED WHITE CORN MEAL, DEGERMED WHITE CORN MEAL.
1555.0210	MILK CHOCOLATE, SWEET MILK CHOCOLATE, MILK CHOCOLATE COATING, SWEET MILK CHOCOLATE COATING.	1555.0640	DEGERMINATED YELLOW CORN MEAL, DEGERMED YELLOW CORN MEAL.
1555.0230	OPTIONAL DAIRY INGREDIENTS.	1555.0650	SELF-RISING WHITE CORN MEAL.
1555.0240	LABEL STATEMENT OF OPTIONAL INGREDIENTS.	1555.0660	METHOD.
1555.0250	OPTIONAL ALKALI INGREDIENT.	1555.0670	SELF-RISING YELLOW CORN MEAL.
1555.0260	SKIM MILK CHOCOLATE, SWEET SKIM MILK CHOCOLATE, SKIM MILK CHOCOLATE COATING, SWEET SKIM MILK CHOCOLATE COATING.	1555.0680	WHITE CORN FLOUR.
1555.0265	BUTTERMILK CHOCOLATE, BUTTERMILK CHOCOLATE COATING.	1555.0690	METHOD.
1555.0270	MIXED DAIRY PRODUCT CHOCOLATES, MIXED DAIRY PRODUCT CHOCOLATE COATINGS.	1555.0700	YELLOW CORN FLOUR.
1555.0280	NAME OF EACH ARTICLE.	1555.0710	GRITS, CORN GRITS, HOMINY GRITS.
1555.0290	SWEET CHOCOLATE AND VEGETABLE FAT OTHER THAN CACAO FAT COATING.	1555.0720	METHOD.
	<b>WHEAT FLOUR AND RELATED PRODUCTS</b>	1555.0730	YELLOW GRITS, YELLOW CORN GRITS, YELLOW HOMINY GRITS.
1555.0310	FLOUR, WHITE FLOUR, WHEAT FLOUR, PLAIN FLOUR.	1555.0740	QUICK GRITS, QUICK COOKING GRITS.
1555.0320	OPTIONAL BLEACHING INGREDIENTS.	1555.0750	ENRICHED CORN MEALS.
1555.0330	LABEL STATEMENT OF OPTIONAL INGREDIENTS.	1555.0760	NAME.
1555.0340	DETERMINATION OF ASH, PROTEIN, AND MOISTURE.	1555.0770	ENRICHED CORN GRITS.
1555.0350	ENRICHED FLOUR.	1555.0780	NAME.
1555.0360	BROMATED FLOUR.	1555.0790	METHOD.
1555.0370	ENRICHED BROMATED FLOUR.		<b>RICE AND RELATED PRODUCTS</b>
1555.0380	DURUM FLOUR.	1555.0800	ENRICHED RICE.
		1555.0810	CARRIER.
		1555.0815	VITAMINS AND MINERALS PRESENT AFTER WASHING.
		1555.0820	NAME.
		1555.0830	METHOD.
		1555.0840	ALIMENTARY PASTES
		1555.0850	MACARONI PRODUCTS.
		1555.0860	MACARONI.
		1555.0870	SPAGHETTI.
		1555.0880	VERMICELLI.
		1555.0885	NAME.
		1555.0890	LABELING.
		1555.0890	MILK MACARONI PRODUCTS.
		1555.0900	MILK MACARONI.
		1555.0910	MILK SPAGHETTI.
		1555.0920	MILK VERMICELLI.
		1555.0930	NAME.

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- 1555.0940 MILK INGREDIENTS.  
1555.0950 WHOLE WHEAT MACARONI PRODUCTS.  
1555.0960 WHOLE WHEAT MACARONI.  
1555.0970 WHOLE WHEAT SPAGHETTI.  
1555.0980 WHOLE WHEAT VERMICELLI.  
1555.0990 NAME.  
1555.1000 WHEAT AND SOY MACARONI PRODUCTS.  
1555.1010 WHEAT AND SOY MACARONI.  
1555.1020 WHEAT AND SOY SPAGHETTI.  
1555.1030 WHEAT AND SOY VERMICELLI.  
1555.1040 NAME.  
1555.1050 VEGETABLE MACARONI PRODUCTS.  
1555.1060 VEGETABLE MACARONI.  
1555.1070 VEGETABLE SPAGHETTI.  
1555.1080 VEGETABLE VERMICELLI.  
1555.1090 NAME.  
1555.1100 NOODLE PRODUCTS.  
1555.1110 NOODLES, EGG NOODLES.  
1555.1120 EGG MACARONI.  
1555.1130 EGG SPAGHETTI.  
1555.1140 EGG VERMICELLI.  
1555.1150 NAME.  
1555.1160 LABEL STATEMENT OF OPTIONAL INGREDIENTS.  
1555.1170 WHEAT AND SOY NOODLE PRODUCTS.  
1555.1175 WHEAT AND SOY NOODLES, WHEAT AND SOY EGG NOODLES.  
1555.1180 WHEAT AND SOY EGG MACARONI.  
1555.1190 WHEAT AND SOY EGG SPAGHETTI.  
1555.1200 WHEAT AND SOY EGG VERMICELLI.  
1555.1210 NAME.  
1555.1220 VEGETABLE NOODLE PRODUCTS.  
1555.1230 VEGETABLE NOODLES, VEGETABLE EGG NOODLES.  
1555.1240 VEGETABLE EGG MACARONI.  
1555.1250 VEGETABLE EGG SPAGHETTI.  
1555.1260 VEGETABLE EGG VERMICELLI.  
1555.1270 NAME.  
1555.1280 ENRICHED MACARONI PRODUCTS.  
1555.1290 ENRICHED MACARONI.  
1555.1300 ENRICHED SPAGHETTI.  
1555.1310 ENRICHED VERMICELLI.  
1555.1320 NAME.  
1555.1330 ENRICHED NOODLE PRODUCTS.  
1555.1340 ENRICHED NOODLES, ENRICHED EGG NOODLES.  
1555.1350 ENRICHED EGG MACARONI.  
1555.1360 ENRICHED EGG SPAGHETTI.  
1555.1370 ENRICHED EGG VERMICELLI.  
1555.1380 NAME.  
**BAKERY PRODUCTS**  
1555.1390 BREAD, WHITE BREAD AND ROLLS, WHITE ROLLS OR BUNS, WHITE BUNS.  
1555.1400 OPTIONAL INGREDIENTS METHOD.  
1555.1410 UNIT WEIGHTS.  
1555.1420 UNIT WEIGHTS.  
1555.1430 OPTIONAL GLUTEN INGREDIENT.  
1555.1440 OPTIONAL INGREDIENTS LABELING.  
1555.1450 ENRICHED BREAD AND ENRICHED ROLLS OR ENRICHED BUNS.  
1555.1460 UNIT WEIGHTS.  
1555.1470 OPTIONAL GLUTEN INGREDIENT.  
1555.1480 MILK BREAD AND MILK ROLLS OR MILK BUNS.  
1555.1490 UNIT WEIGHTS.  
1555.1500 DAIRY INGREDIENTS.  
1555.1510 RAISIN BREAD AND RAISIN ROLLS OR RAISIN BUNS.  
1555.1520 OPTIONAL GLUTEN INGREDIENT.  
1555.1530 UNIT WEIGHTS.  
1555.1540 WHOLE WHEAT BREAD, GRAHAM BREAD, ENTIRE WHEAT BREAD AND WHOLE WHEAT ROLLS, GRAHAM ROLLS, ENTIRE WHEAT ROLLS OR WHOLE WHEAT BUNS, GRAHAM BUNS, ENTIRE WHEAT BUNS.  
1555.1550 UNIT WEIGHTS.  
1555.1560 LABELING OF BAKERY PRODUCTS.  
1555.1570 BREAD LABELING.  
1555.1580 ADDITIONAL LABELING REQUIREMENTS.  
1555.1590 UNIT WEIGHTS, BREAD, ROLLS, BUNS.  
1555.1600 NET WEIGHT.  
**DRESSINGS FOR FOODS**  
1555.1610 MAYONNAISE, MAYONNAISE DRESSING.  
1555.1620 ACIDIFYING INGREDIENTS.  
1555.1630 EGG-YOLK-CONTAINING INGREDIENTS.  
1555.1640 OPTIONAL INGREDIENTS LABELING.  
1555.1650 FRENCH DRESSING.  
1555.1660 ACIDIFYING INGREDIENTS.  
1555.1670 OPTIONAL EMULSIFYING INGREDIENTS.  
1555.1680 OPTIONAL INGREDIENTS LABELING.  
1555.1690 SALAD DRESSING.  
1555.1700 ACIDIFYING INGREDIENTS.  
1555.1710 EGG-YOLK-CONTAINING INGREDIENTS.  
1555.1720 OPTIONAL EMULSIFYING INGREDIENTS.  
1555.1730 OPTIONAL INGREDIENTS LABELING.  
**FRUIT BUTTERS, FRUIT JELLIES, FRUIT PRESERVES, AND RELATED PRODUCTS**  
1555.1740 FRUIT BUTTER.  
1555.1750 OPTIONAL FRUIT INGREDIENT WEIGHT DETERMINATION METHOD.  
1555.1760 PREPARATION OF OPTIONAL FRUIT INGREDIENTS.  
1555.1770 FACTOR.  
1555.1780 OPTIONAL SACCHARINE INGREDIENTS.  
1555.1790 DEFINITIONS.  
1555.1800 FRUIT BUTTER NAMES.  
1555.1810 OPTIONAL INGREDIENTS LABELING.  
1555.1820 PLACEMENT OF OPTIONAL INGREDIENTS STATEMENTS.  
1555.1830 FRUIT JELLY.  
1555.1840 WEIGHT OF FRUIT JUICE INGREDIENT.  
1555.1850 FRUIT JUICE INGREDIENTS.  
1555.1860 FACTOR.  
1555.1870 OPTIONAL SACCHARINE INGREDIENTS.  
1555.1880 DEFINITIONS.  
1555.1890 JELLY NAMES.  
1555.1900 OPTIONAL INGREDIENTS LABELING.  
1555.1910 PLACEMENT OF OPTIONAL INGREDIENTS STATEMENTS.  
1555.1920 PRESERVES, JAMS.  
1555.1930 FRUIT INGREDIENTS.  
1555.1940 WEIGHT OF FRUIT, COMBINATION OF FRUITS, OR FRUIT INGREDIENT.  
1555.1950 OPTIONAL SACCHARINE INGREDIENTS.  
1555.1960 DEFINITIONS.  
1555.1965 PRESERVE OR JAM NAME.  
1555.1970 OPTIONAL INGREDIENTS LABELING.  
1555.1980 PLACEMENT OF OPTIONAL INGREDIENTS STATEMENTS.  
**FRUITS AND RELATED PRODUCTS**  
1555.1990 FRUIT.  
1555.2000 FRESH FRUIT.  
1555.2100 GRAPEFRUIT, POMELO.  
1555.2110 ORANGE.  
1555.2120 DRIED FRUIT.  
1555.2130 EVAPORATED APPLES.  
1555.2140 DRIED APRICOTS.  
1555.2150 DRIED PEACHES.  
1555.2160 DRIED PRUNES.  
1555.2170 COLD-PACK FRUIT.  
1555.2180 FRUIT JUICE.  
1555.2190 GRAPE JUICE.  
1555.2200 ORANGE JUICE.  
**VEGETABLES AND RELATED PRODUCTS**  
1555.2205 VEGETABLES.  
1555.2210 DRIED VEGETABLES.  
1555.2220 PICKLES.  
1555.2225 PICKLED VEGETABLES.  
1555.2230 LABELING.  
1555.2240 SALT PICKLES.  
1555.2250 SWEET PICKLES.  
1555.2260 SAUERKRAUT.  
1555.2270 LABELING.

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<b>SUGAR AND RELATED PRODUCTS</b>		
1555.2280	SUGAR.	1555.3070
1555.2290	GRANULATED, LOAF, CUT, MILLED, AND POWDERED SUGARS.	1555.3080
1555.2300	MAPLE SUGAR, MAPLE CONCRETE.	1555.3090
1555.2310	MASSECUITE, MELADA, MUSH SUGAR, AND CONCRETE.	1555.3100
1555.2320	MOLASSES.	1555.3110
1555.2330	REFINERS' SYRUP, TREACLE.	1555.3120
1555.2340	SYRUP.	1555.3130
1555.2350	SUGARCANE SYRUP.	1555.3140
1555.2360	SORGHUM SYRUP.	1555.3150
1555.2370	MAPLE SYRUP.	1555.3160
1555.2380	SUGAR SYRUP.	1555.3170
1555.2390	DEXTROSE.	1555.3180
1555.2400	CORN SYRUP.	
1555.2410	CANDY.	
<b>TEA AND COFFEE</b>		
1555.2420	TEA.	1555.3190
1555.2430	COFFEE.	1555.3200
<b>EDIBLE VEGETABLE OILS AND FATS</b>		1555.3210
1555.2440	EDIBLE FATS AND EDIBLE OILS.	1555.3220
1555.2450	CACAO FAT, COCOA FAT.	1555.3230
1555.2460	COCONUT OIL, COPRA OIL.	1555.3240
1555.2470	COCHIN OIL.	1555.3250
1555.2480	CEYLON OIL.	1555.3260
1555.2490	CORN OIL, MAIZE OIL.	
1555.2500	COTTONSEED OIL.	1555.3270
1555.2510	OLIVE OIL, SWEET OIL.	
1555.2520	PALM KERNEL OIL.	1555.3280
1555.2530	PEANUT OIL, ARACHIS OIL, EARTHNUIT OIL.	1555.3290
1555.2540	POPPY SEED OIL.	1555.3300
1555.2550	RAPESEED OIL, RAPE OIL, COLZA OIL.	1555.3310
1555.2560	SOYBEAN OIL, SOY OIL, SOJA OIL.	1555.3320
1555.2570	SESAME OIL, GINGILLI OIL, TEEL OIL, BENNE OIL.	1555.3330
1555.2580	SUNFLOWER OIL.	1555.3340
<b>SPICES AND CONDIMENTS</b>		1555.3350
1555.2590	TERMS "DRIED" AND "STARCH."	1555.3360
1555.2600	SPICES.	1555.3370
1555.2610	ALLSPICE, PIMIENTO.	1555.3380
1555.2620	ANISE, ANISEED.	1555.3390
1555.2630	BAY LEAVES.	1555.3400
1555.2640	CAPERS.	1555.3410
1555.2650	CARAWAY, CARAWAY SEED.	1555.3420
1555.2660	CARDAMON.	1555.3430
1555.2670	CARDAMON SEED.	1555.3440
1555.2680	RED PEPPER.	1555.3450
1555.2690	CAYENNE PEPPER, CAYENNE.	1555.3460
1555.2700	PAPRIKA.	1555.3470
1555.2710	HUNGARIAN PAPRIKA.	1555.3480
1555.2720	PIMENTON, PIMIENTO, SPANISH PAPRIKA.	1555.3490
1555.2730	CELERY SEED.	1555.3500
1555.2740	CINNAMON.	1555.3510
1555.2750	CEYLON CINNAMON.	1555.3520
1555.2760	SAIGON CINNAMON, CASSIA.	1555.3530
1555.2770	GROUND CINNAMON, GROUND CASSIA.	1555.3540
1555.2780	CLOVES.	1555.3550
1555.2790	CORIANDER SEED.	1555.3560
1555.2800	CUMIN SEED.	1555.3570
1555.2810	CURCUMA, TURMERIC.	1555.3580
1555.2820	DILL SEED.	1555.3590
1555.2830	FENNEL SEED.	1555.3600
1555.2840	GINGER.	1555.3610
1555.2850	JAMAICA GINGER.	1555.3620
1555.2860	LIMED GINGER, BLEACHED GINGER.	1555.3630
1555.2870	HORSERADISH.	1555.3640
1555.2880	PREPARED HORSERADISH.	1555.3650
1555.2890	MACE.	1555.3660
1555.2900	MACASSAR MACE, PAPUA MACE.	1555.3680
1555.2910	MARJORAM, LEAF MARJORAM.	1555.3700
1555.3000	MUSTARD SEED.	1555.3720
1555.3010	GROUND MUSTARD SEED, MUSTARD MEAL.	1555.3730
1555.3020	MUSTARD CAKE.	
1555.3030	MUSTARD FLOUR, GROUND MUSTARD, MUSTARD.	1555.3750
1555.3040	PREPARED MUSTARD.	1555.3770
1555.3050	NUTMEG.	1555.3780
1555.3060	MACASSAR NUTMEG, PAPUA NUTMEG, MALE NUTMEG, LONG NUTMEG.	1555.3790
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1555.3890	EXTRACT OF VANILLA AND TONKA OR EXTRACT OF TONKA AND VANILLA.	1555.4550	OPTIONAL PEAR INGREDIENTS.
1555.3900	SUCH TERMS AS "DOUBLE" AND "TRIPLE."	1555.4560	OPTIONAL PACKING MEDIA.
1555.3910	TERM "CONCENTRATED."	1555.4570	WATER AND PEAR JUICE.
1555.3920	STRENGTH OF EXTRACT OR FLAVOR.	1555.4580	LIQUID INGREDIENT AND SACCHARINE INGREDIENT.
	<b>VINEGARS</b>	1555.4590	DENSITIES.
1555.3930	VINEGAR, CIDER VINEGAR, APPLE VINEGAR.	1555.4600	DEFINITIONS.
1555.3940	WINE VINEGAR, GRAPE VINEGAR.	1555.4610	LABEL STATEMENT OF OPTIONAL INGREDIENTS.
1555.3950	MALT VINEGAR.	1555.4620	PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.
1555.3960	SUGAR VINEGAR.	1555.4630	STANDARD OF QUALITY FOR CANNED PEARS.
1555.3970	GLUCOSE VINEGAR.	1555.4640	METHOD FOR TESTING.
1555.3980	SPIRIT VINEGAR, DISTILLED VINEGAR, GRAIN VINEGAR.	1555.4650	LABEL STATEMENT OF SUBSTANDARD QUALITY.
	<b>ALMOND PASTES AND KERNEL PASTES</b>	1555.4660	STANDARD FILL OF CONTAINER FOR CANNED PEARS.
1555.3990	ALMOND PASTE.	1555.4670	LABEL STATEMENT OF SUBSTANDARD FILL.
1555.4000	KERNEL PASTES.	1555.4680	CANNED PEARS WITH RUM.
	<b>BAKING POWDER</b>	1555.4690	CANNED CHERRIES.
1555.4100	BAKING POWDER.	1555.4700	OPTIONAL CHERRY INGREDIENTS.
	<b>SALT</b>	1555.4710	OPTIONAL PACKING MEDIA.
1555.4110	TABLE SALT, DAIRY SALT.	1555.4720	WATER AND CHERRY JUICE.
	<b>NONALCOHOLIC BEVERAGES</b>	1555.4730	LIQUID INGREDIENT AND SACCHARINE INGREDIENT.
1555.4120	SODA WATER.	1555.4740	DENSITIES.
1555.4130	OPTIONAL INGREDIENTS.	1555.4750	DEFINITIONS.
1555.4140	NAMES OF BEVERAGES.	1555.4760	LABEL STATEMENT OF OPTIONAL INGREDIENTS.
1555.4150	OPTIONAL INGREDIENTS LABELING.	1555.4770	PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.
1555.4160	PLACEMENT OF LABEL STATEMENTS.	1555.4780	STANDARD OF QUALITY FOR CANNED CHERRIES.
1555.4170	BACTERIAL, YEAST, AND MOLD STANDARDS FOR NONALCOHOLIC BEVERAGES.	1555.4790	TESTS FOR STANDARDS OF QUALITY FOR PITTED CANNED CHERRIES.
1555.4180	PURIFIED WATER.	1555.4800	TESTS FOR STANDARDS OF QUALITY FOR UNPITTED CANNED CHERRIES.
	<b>OTHER BEVERAGES</b>	1555.4810	LABEL STATEMENT OF SUBSTANDARD QUALITY.
1555.4190	PHOSPHATE BEVERAGE.	1555.4820	STANDARD OF FILL OF CONTAINER FOR CANNED CHERRIES.
1555.4200	INFORMATION ON BOTTLES.	1555.4830	LABEL STATEMENT OF SUBSTANDARD FILL.
1555.4210	MISBRANDING.	1555.4840	CANNED CHERRIES WITH RUM.
1555.4220	CERTAIN NONALCOHOLIC BEVERAGES.	1555.4845	CANNED FRUIT COCKTAIL, CANNED COCKTAIL FRUITS, CANNED FRUITS FOR COCKTAIL.
1555.4230	MODIFIED FRUIT JUICE.	1555.4850	FRUIT INGREDIENTS.
	<b>CANNED FRUITS</b>	1555.4860	OPTIONAL PACKING MEDIA.
1555.4240	CANNED PEACHES.	1555.4870	LIQUID INGREDIENT AND SACCHARINE INGREDIENT.
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## FOOD DEFINITIONS AND STANDARDS 1555.0005

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## ORGANIC FOOD

### 1555.0005 DEFINITIONS.

Subpart 1. **Scope.** The definitions in subparts 2 to 13 apply to parts 1555.0005 to 1555.0012.

Subp. 2. [Repealed, 15 SR 11]

Subp. 3. **Department.** "Department" means the Minnesota Department of Agriculture.

Subp. 4. **Drug.** "Drug" means an article intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in animals other than humans and articles other than feed intended to affect the structure or any function of an animal's body.

Subp. 5. **Fertilizer material.** "Fertilizer material" means a substance containing nitrogen, phosphorus, potassium, or a recognized plant food nutrient, or a compound which is used primarily for its plant nutrient content or for compounding mixed fertilizers except un-manipulated animal and vegetable manures.

Subp. 6. **Horticultural oils.** "Horticultural oils" means a highly refined paraffinic petroleum product made solely for use on plants at specific dosages to act as an insecticide or miticide.

Subp. 7. **Natural organic fertilizer.** "Natural organic fertilizer" means materials derived from either plant or animal products containing one or more elements (other than carbon, hydrogen, and oxygen) which are essential for plant growth. These materials may be,

subjected to biological degradation processes under normal conditions of aging, rainfall, sun curing, air drying, composting, rotting, enzymatic or anaerobic or aerobic bacterial action, or any combination of these. These materials must not be mixed with synthetic materials or changed in any physical or chemical manner from their initial state except by physical manipulation such as drying, cooking, chopping, grinding, shredding, or pelleting.

Subp. 8. **Pesticide.** "Pesticide" means a substance or mixture of substances intended for preventing, destroying, repelling, or mitigating a pest, and a substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

Subp. 9. **Plant amendment.** "Plant amendment" means a substance applied to plants or seeds which is intended to improve conditions which facilitate germination, growth, yield, product quality, reproduction, flavor, or other desirable characteristics of plants except commercial fertilizers, soil amendments, agricultural liming materials, animal and vegetable manures, and pesticides.

Subp. 10. **Soap.** "Soap" means fatty acids and their salts if the fatty acid occurs in nature.

Subp. 11. **Soil amendment.** "Soil amendment" means (1) an aggregant, additive, or organic chemical substances, (2) a chemically or physically modified natural substance, (3) a naturally occurring substance, or (4) a manufacturing by-product, mixed or unmixed, which is represented as having a primary function of forming or stabilizing soil aggregants in soil to which it is to be applied and thereby improving the resistance of the soil to the slaking action of water, increasing its water and air permeability, improving the resistance of its surface to crusting, improving its ease of cultivation, or otherwise favorably modifying its structural or physical properties.

Subp. 12. **Synthetic.** "Synthetic" means a complex compound artificially produced usually by chemical synthesis of elements or simple compounds.

Subp. 13. [Repealed, 15 SR 11]

**Statutory Authority:** *MS s 31.94; 31.95*

**History:** *12 SR 1366; 15 SR 11; 17 SR 1279*

### 1555.0006 ORGANIC FOOD REQUIREMENTS.

Food for which the terms "organic food," "organically grown food," or a derivative of the word "organic" are used must be food which:

A. was produced, harvested, cleaned, stored, transported, distributed, processed, and packaged without the use of artificial irradiation, synthetic pesticides, synthetic plant or soil amendments, or fertilizer materials except natural organic fertilizers or as specifically allowed in part 1555.0007;

B. contains no added artificial coloring, artificial flavoring, or artificial preservative;

C. in the case of perennial crops, was grown in soil or growth medium free of synthetic pesticides, synthetic soil and plant amendments, and synthetic fertilizer materials, except as specifically allowed in part 1555.0007, for three years before and throughout the entire growing and harvesting season of the crop;

D. in the case of annual crops and two-year crops, was grown in soil free of synthetic pesticides, synthetic soil and plant amendments, and synthetic fertilizer materials, except as allowed in part 1555.0007, for three years before planting or transplanting and throughout the entire growing and harvesting of the crop;

E. in the case of meat, poultry, wild or domesticated game, shell fish, other non-plant life, or fish, was raised for at least the final 60 percent of its sale weight:

(1) on food produced in conformity with item C or D;

(2) without the application of any synthetic pesticides or drugs;

(3) in a habitat for growth or culture that has been free of synthetic fertilizers, pesticides, hormones, antibiotics, growth stimulants, and arsenicals for at least three years, except as allowed in part 1555.0007;

(4) without any drug or synthetic pesticides administered or introduced by any method, except for treatment of a specific disease or malady as diagnosed by a veterinarian;

an not less than 90 days before the slaughter for meat, poultry, wild or domestic game, shell fish, other nonplant life, or fish; and

F. in the case of milk or eggs, was produced by animals raised in accordance with item E, except that no synthetic pesticide or drug was administered or introduced less than 30 days before the production of the milk or eggs.

**Statutory Authority:** *MS s 31.94*

**History:** *12 SR 1366*

#### **1555.0007 EXCEPTIONS.**

Exceptions to part 1555.0006 include:

- A. enzyme sources;
- B. cultures of living or killed microorganisms;
- C. bordeaux mixtures;
- D. elemental sulfur and lime sulfur;
- E. gypsum;
- F. diatomaceous earth;
- G. basic copper sulfate;
- H. horticultural oils;
- I. fish emulsion that is not synthetically produced;
- J. soap;
- K. naturally occurring mineral materials that are not chemically modified;
- L. botanically derived pesticides containing no other active pesticidal ingredient, which are not synthetically produced but which may contain synthetic compounds such as emulsifiers, synergists, and carriers; and
- M. pesticide or other toxic chemical residues, not to exceed ten percent of the tolerance established by the United States Food and Drug Administration or Environmental Protection Agency.

**Statutory Authority:** *MS s 31.94*

**History:** *12 SR 1366*

#### **1555.0008 TREATED SEED, TRANSPLANTS AND PROPAGATING PARTS.**

Subpart 1. **Organic food producers.** If organic food producers wish to purchase and use treated seed, treated transplants, or treated propagating parts, they must submit a written statement to the department that usable untreated seed transplants or propagating parts of the desired kind or variety are not available. A record of the purchase, including the kind and amount of seed, variety if any, the name and address of the seller and the date of purchase, must be maintained by the producer for three years after the crop is harvested.

Subp. 2. **Certified organic food producers.** If certified organic food producers wish to purchase and use treated seed, treated transplants, or treated propagating parts, they must submit a written statement to the certifying agency at the time of certification that usable untreated seed transplants or propagating parts of the desired kind or variety are not available. A record of the purchase, including the kind and amount of seed, variety if any, the name and address of the seller and the date of purchase, must be maintained by the producer for three years after the crop is harvested.

**Statutory Authority:** *MS s 31.94*

**History:** *12 SR 1366*

#### **1555.0009 RECORDS.**

Subpart 1. **Producer.** A producer who sells food derived from a crop which the producer has grown and which is identified as organic, organically grown, or by a derivative of the word "organic," shall accurately keep the following records: year and type of crop; location of the acreage used for growing that crop; additions made to the soil or applied to that crop; use of any treated seed, treated transplants, or treated propagating parts; and quantity, date, and acreage harvested. These records must be retained for three years after the food is sold and delivered by the producer.



Subp. 2. **Processors and manufacturers.** A person who processes or manufactures a food which is sold or identified as organic, organically grown, or by a derivative of the word "organic," shall keep accurate records of the ingredients of that food, the names and addresses of persons from whom the ingredients were purchased, the date and quantity of ingredients purchased, and copies of invoices. These records must be retained for three years after the food is sold and delivered.

Subp. 3. **Vendors.** A person who sells a food subject to subpart 1 or 2, shall keep accurate records of the names and addresses of persons from whom that food was purchased, the date and quantity of food purchased, and copies of invoices. These records must be retained for three years after the food is sold and delivered.

Subp. 4. **Provision of information.** A producer, processor, manufacturer, or vendor of food subject to subpart 1, 2, or 3 shall provide the department, on demand, relevant information from the records required under this part.

**Statutory Authority:** *MS s 31.94*

**History:** *12 SR 1366*

#### 1555.0010 INSPECTION AUTHORITY.

The department may inspect at reasonable times an area where food identified, labeled, or advertised as organic, organically grown, or by a derivative of the word "organic," is grown, processed, manufactured, stored, or sold.

**Statutory Authority:** *MS s 31.94*

**History:** *12 SR 1366*

1555.0011 [Repealed, 15 SR 11]

#### 1555.0012 PROHIBITIONS.

No claim or implication may be made in the identification, labeling, advertising, or promotion of a food product, including processed food products, that the food product is organic, organically grown, or by a derivative of the word "organic," unless the product, including all of its ingredients, conforms to the requirements of parts 1555.0005 to 1555.0012.

Food that contains one or more organic ingredients may contain an information statement on the label, such as: "Contains organic rye flour," in letters not to exceed one-half the height of the letters used in the product identity. The word "organic" also must precede the name of each organic ingredient identified in the list of ingredients.

**Statutory Authority:** *MS s 31.94*

**History:** *12 SR 1366*

1555.0013 [Repealed, 15 SR 11]

### CACAO PRODUCTS

#### 1555.0020 CACAO NIBS, COCOA NIBS, CRACKED COCOA.

"Cacao nibs," "cocoa nibs," "cracked cocoa" is the food prepared by heating and cracking dried or cured and cleaned cacao beans and removing shell therefrom. Cacao nibs or the cacao beans from which they are prepared may be processed by heating with one or more of the following optional alkali ingredients, adding as such or in aqueous solution: bicarbonate, carbonate, or hydroxide of sodium, ammonium, or potassium; or carbonate or oxide of magnesium; but for each 100 parts by weight of cacao nibs used, as such or before shelling from the cacao beans, the total quantity of such alkalis used is not greater in neutralizing value calculated from the respective combining weights of such alkalis used than the neutralizing value of three parts by weight of anhydrous potassium carbonate. The cacao shell content of cacao nibs is not more than 1.75 percent by weight calculated to an alkali-free basis if they or the cacao beans from which they were prepared have been processed with alkali, as determined by the method prescribed under "Shell in Cacao Nibs – Tentative" beginning on page 208 of "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," fifth edition, 1940.

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

**1555.0030 OPTIONAL ALKALI INGREDIENTS.**

When cacao nibs or the cacao beans from which they are prepared are processed, in whole or in part, with any optional alkali ingredient specified in part 1555.0020, the label shall bear the statement "processed with alkali"; but in lieu of the word "alkali" in such statement the specific common name of the optional alkali ingredient may be used. Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, such statement shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter.

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

**1555.0040 CHOCOLATE LIQUOR, CHOCOLATE, BAKING CHOCOLATE, BITTER CHOCOLATE, COOKING CHOCOLATE, CHOCOLATE COATING, BITTER CHOCOLATE COATING.**

"Chocolate liquor," "chocolate," "baking chocolate," "bitter chocolate," "cooking chocolate," "chocolate coating," "bitter chocolate coating" is the solid or semiplastic food prepared by finely grinding cacao nibs. To such ground cacao nibs, cacao fat, or a cocoa or both may be added in quantities needed to adjust the cacao fat content of the finished chocolate liquor. For the purposes of parts 1555.0040 to 1555.0070 the term "cocoa" means break-fast cocoa, cocoa, lowfat cocoa, or any mixture of two or more of these. Chocolate liquor may be spiced, flavored, or otherwise seasoned with one or more of the following optional ingredients, other than any such ingredient or combination of ingredients specified in items A to C which imparts a flavor that imitates the flavor of chocolate, milk, or butter:

- A. ground spice;
- B. ground vanilla beans; any natural food flavoring oil, oleoresin, or extract;
- C. vanillin, ethyl vanillin, or other artificial food flavoring;
- D. butter, milk fat, dried malted cereal extract, ground coffee, ground nut meats;
- E. salt.

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

**1555.0050 OPTIONAL INGREDIENTS.**

Any optional ingredient used with the cacao beans or cacao nibs from which such chocolate liquor is prepared or used with any cocoa added in preparing such chocolate liquor shall be considered to be an optional ingredient used with such chocolate liquor. The optional alkali ingredients specified for use with cacao nibs in part 1555.0020 may be used as optional ingredients with chocolate liquor; but for each 100 parts by weight of cacao nibs used in preparing the chocolate liquor, the total quantity of such alkalis used is not greater in neutralizing value calculated from the respective combining weights of such alkalis used than three parts by weight of anhydrous potassium carbonate. The finished chocolate liquor contains not less than 50 percent and not more than 58 percent by weight of cacao fat. Unless the chocolate liquor is seasoned with butter, milk fat, or ground nut meats, the percentage of cacao fat is determined by the method prescribed under "Fat Method I — Official" beginning on page 202 of "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," fifth edition, 1940.

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

**1555.0060 LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statements prescribed showing the optional ingredients used shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter. When the food is seasoned with an optional ingredient specified in part 1555.0040, item A, the label shall bear the statement "spiced," "spice added," "with added spice," "spiced with \_\_\_\_\_," or "with added \_\_\_\_\_," the blank being filled in with the specific common name of the spice used. When the food is flavored with an optional ingredient specified in part 1555.0040, item B, the label shall bear the statement "flavored," "flavoring added," "with added flavoring," "flavored with \_\_\_\_\_," "\_\_\_\_\_ added," or "with added \_\_\_\_\_," the blank being filled in with the specific common name of the flavoring used. When the food is flavored with an op-

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tional ingredient specified in part 1555.0040, item C, the label shall bear the statement "artificially flavored," "artificial flavoring added," or "with artificial flavoring." When the food is seasoned with an optional ingredient specified in part 1555.0040, item D, the label shall bear the statement "seasoned with \_\_\_\_\_," the blank being filled in with the specific common name of the substance used as seasoning.

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

**1555.0070 OPTIONAL ALKALI INGREDIENT.**

When any optional alkali ingredient specified in part 1555.0020 is used, the label shall bear the statement "processed with alkali"; but in lieu of the word "alkali" in such statement the specific common name of the optional alkali ingredient may be used. Label statements prescribed by part 1555.0060, may be combined, as for example, "with added cinnamon, vanilla, and coumarin, an artificial flavoring."

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

**1555.0080 BREAKFAST COCOA, HIGH FAT COCOA.**

Breakfast cocoa, high fat cocoa is the food prepared by pulverizing the residual material remaining after part of the cacao fat has been removed from ground cacao nibs. It may be spiced, flavored, or otherwise seasoned with one or more of the following optional ingredients, other than any such ingredient or combination of ingredients which imparts a flavor that imitates the flavor of chocolate, milk, or butter:

- A. ground spice;
- B. ground vanilla beans; any natural food flavoring oil, oleoresin, or extract;
- C. vanillin, ethyl vanillin, or other artificial food flavoring; or
- D. salt.

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

**1555.0090 OPTIONAL INGREDIENTS.**

Any optional ingredient used with the cacao beans, cacao nibs, or ground cacao nibs from which such breakfast cocoa is prepared shall be considered to be an optional ingredient used with such breakfast cocoa. The optional alkali ingredients specified for use with cacao nibs in part 1555.0020 may be used as optional ingredients with breakfast cocoa; but for each 100 parts by weight of cacao nibs used in preparing the breakfast cocoa, the total quantity of such alkalis used is not greater in neutralizing value calculated from the respective combining weights of such alkalis used than three parts by weight of anhydrous potassium carbonate. The finished breakfast cocoa contains not less than 22 percent of cacao fat, as determined by the method prescribed under "Fat Method I — Official" beginning on page 202 of "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," fifth edition, 1940.

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

**1555.0100 LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statements prescribed showing the optional ingredients used shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter. When the food is seasoned with an optional ingredient specified in part 1555.0080, item A, the label shall bear the statement "spiced," "spice added," "with added spice," "spiced with \_\_\_\_\_," or "with added \_\_\_\_\_," the blank being filled in with the specific common name of the spice used. When the food is flavored with an optional ingredient specified in part 1555.0080, item B, the label shall bear the statement "flavored," "flavoring added," "with added flavoring," "flavored with \_\_\_\_\_," "\_\_\_\_\_ added," or "with added \_\_\_\_\_," the blank being filled in with the specific common name of the flavoring used. When the food is flavored with an optional ingredient specified in part 1555.0080, item C, the label shall bear the statement "artificially flavored," "artificial flavoring added," "with artificial flavoring," "artificially flavored with \_\_\_\_\_," or "with \_\_\_\_\_, an artificial flavoring," the blank being filled in with the specific common name of the artificial flavoring used.

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

**1555.0110 OPTIONAL ALKALI INGREDIENT.**

When any optional alkali ingredient specified in part 1555.0020 is used, the label shall bear the statement "processed with alkali," but in lieu of the word "alkali" in such statement the specific common name of the optional alkali ingredient may be used. Label statements prescribed by parts 1555.0100 and 1555.0110 may be combined, as for example, "with added cinnamon, vanilla, and ethyl vanillin, an artificial flavoring."

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

**1555.0120 COCOA, MEDIUM FAT COCOA.**

Cocoa, medium fat cocoa conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for breakfast cocoa by parts 1555.0080 to 1555.0110, except that it contains less than 22 percent but not less than ten percent of cacao fat as determined by the method referred to in parts 1555.0080 and 1555.0090.

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

**1555.0130 LOWFAT COCOA.**

Lowfat cocoa conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for breakfast cocoa by parts 1555.0080 to 1555.0110, except that it contains less than ten percent of cacao fat as determined by the method referred to in parts 1555.0080 and 1555.0090.

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

**1555.0140 SWEET CHOCOLATE, SWEET CHOCOLATE COATING.**

Sweet chocolate, sweet chocolate coating is the solid or semiplastic food, the ingredients of which are intimately mixed and ground, prepared from chocolate liquor with or without the addition of cacao fat sweetened with one of the optional saccharine ingredients specified in part 1555.0160.

It may be spiced, flavored, or otherwise seasoned with one or more of the following optional ingredients, other than any such ingredient or combination of ingredients which imparts a flavor that imitates the flavor of chocolate, milk, or butter:

A. Ground spice, ground vanilla beans, any natural food flavoring oil or oleoresin or extract, ground coffee, ground nut meats, honey, molasses, brown sugar, maple sugar, dried malted cereal extract, salt.

B. Vanillin, ethyl vanillin, or other artificial food flavoring. One or a mixture of both of the following optional emulsifying ingredients may be added in a total quantity not more than 0.5 percent of the weight of the finished food (such ingredient or mixture may be added in combination with a vegetable food fat carrier, such combination containing not less than 60 percent by weight of the emulsifying ingredient or mixture).

C. Lecithin, with or without related natural phosphatides.

D. Monoglycerides and diglycerides of fat-forming fatty acids in combination with monosodium phosphate derivatives thereof. One or any mixture of two or more of the following optional dairy ingredients may be used in such quantity that the finished sweet chocolate contains less than 12 percent by weight of milk constituent solids.

E. Butter, milk fat, cream, milk, concentrated milk, evaporated milk, sweetened condensed milk, dried milk, skim milk, concentrated skim milk, evaporated skim milk, sweetened condensed skim milk, nonfat dry milk solids, concentrated buttermilk, dried buttermilk, malted milk. If chocolate liquor with any optional ingredient specified in parts 1555.0040 and 1555.0050 is used, such ingredient shall be considered to be an optional ingredient used with the sweet chocolate. The finished sweet chocolate contains not less than 15 percent by weight of chocolate liquor, calculated by subtracting from the weight of chocolate liquor used the weight of cacao fat therein and the weights therein of alkali and seasoning ingredients, if any, multiplying the remainder by 2.2, dividing the result by the weight of the finished sweet chocolate and multiplying the quotient by 100. Bittersweet chocolate is sweet chocolate which contains not less than 35 percent by weight of chocolate liquor, calculated in the same manner.

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

**1555.0160 OPTIONAL SACCHARINE INGREDIENTS.**

The optional saccharine ingredients referred to in part 1555.0140 are: sugar or partly refined cane sugar or both; any mixture of dextrose and sugar or partly refined cane sugar or both in which the weight of the solids of the dextrose used is not more than one-third of the total weight of the solids of all the saccharine ingredients used; any mixture of dried corn syrup and sugar or partly refined cane sugar or both in which the weight of the solids of the dried corn syrup used is not more than one-fourth of the total weight of the solids of all the saccharine ingredients used; any mixture of dextrose, dried corn syrup, and sugar or partly refined cane sugar or both, in which three times the weight of the solids of the dextrose used plus four times the weight of the solids of the dried corn syrup used is not more than the total weight of the solids of all the saccharine ingredients used.

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

**1555.0170 DEFINITIONS.**

Subpart 1. **Scope.** For the purpose of parts 1555.0140 to 1555.0200, the following definitions apply.

Subp. 2. **Dextrose.** The term "dextrose" means the anhydrous refined monosaccharide obtained from hydrolyzed starch.

Subp. 3. **Dried corn syrup.** The term "dried corn syrup" means the product obtained by drying incompletely hydrolyzed cornstarch; its solids contain not less than 58 percent by weight of reducing sugars.

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

**1555.0180 ALTERNATE NAMES FOR SWEET CHOCOLATE.**

"Semisweet chocolate," "bittersweet chocolate," "semisweet chocolate coating," and "bittersweet chocolate coating" are alternate names for sweet chocolate which contains not less than minimum quantity of chocolate liquor prescribed for bittersweet chocolate by part 1555.0140.

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

**1555.0190 LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statements hereinafter prescribed showing the optional ingredients used shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter. When the food is flavored with an optional ingredient specified in part 1555.0140, item B, the label shall bear the statement "artificially flavored," "artificial flavoring added," "with artificial flavoring," "artificially flavored with \_\_\_\_\_," or "with \_\_\_\_\_, an artificial flavoring," the blank being filled in with the specific common name of the artificial flavoring used. When an optional ingredient specified in part 1555.0140, item C or D is used, the label shall bear the statement "emulsifier added" or "with added emulsifier."

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

**1555.0200 OPTIONAL ALKALI INGREDIENT.**

When any optional alkali ingredient specified in part 1555.0020 is used the label shall bear the statement "processed with alkali" but in lieu of the word "alkali" in such statement the specific common name of the optional alkali ingredient may be used. Label statements prescribed by part 1555.0190, items A and B may be combined, as for example, "with added emulsifier and ethyl vanillin, an artificial flavoring."

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

**1555.0210 MILK CHOCOLATE, SWEET MILK CHOCOLATE, MILK CHOCOLATE COATING, SWEET MILK CHOCOLATE COATING.**

Milk chocolate, sweet milk chocolate, milk chocolate coating, sweet milk chocolate coating is the solid or semiplastic food the ingredients of which are intimately mixed and ground, prepared from chocolate liquor with or without the addition of cacao fat and one or more of the optional dairy ingredients specified in part 1555.0230, sweetened with one of the

optional saccharine ingredients specified in parts 1555.0160 and 1555.0170. It may be spiced, flavored, or otherwise seasoned with one or more of the following optional ingredients, other than any such ingredient or combination of ingredients which imparts a flavor that imitates the flavor of chocolate, milk, or butter:

A. Ground spice, ground vanilla beans, any natural food flavoring oil or oleoresin or extract, ground coffee, ground nut meats, honey, molasses, brown sugar, maple sugar, dried malted cereal extract, salt.

B. Vanillin, ethyl vanillin, or other artificial food flavoring. One or a mixture of both of the following optional emulsifying ingredients may be added in a total quantity not more than 0.5 percent of the weight of the finished food (such ingredient or mixture may be added in combination with a vegetable food fat carrier, such combination containing not less than 60 percent by weight of the emulsifying ingredient or mixture).

C. Lecithin, with or without related natural phosphatides.

D. Monoglycerides and diglycerides of fat-forming fatty acids in combination with monosodium phosphate derivatives thereof. If chocolate liquor with any optional ingredient specified in parts 1555.0040 and 1555.0050 is used, such ingredient shall be considered to be an optional ingredient used with the milk chocolate. The finished milk chocolate contains not less than 2.66 percent by weight of milk fat, not less than 12 percent by weight of milk solids and not less than ten percent by weight of chocolate liquor as calculated by subtracting from the weight of chocolate liquor used the weight of cacao fat therein and the weights therein of alkali and seasoning ingredients, if any, multiplying the remainder by 2.2, dividing the result by the weight of the finished milk chocolate and multiplying the quotient by 100.

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

#### **1555.0230 OPTIONAL DAIRY INGREDIENTS.**

The optional dairy ingredients referred to in part 1555.0210 are milk, concentrated milk, evaporated milk, sweetened condensed milk, dried milk, butter, milk fat, cream, skim milk, concentrated skim milk, evaporated skim milk, sweetened condensed skim milk, and nonfat dry milk solids; but in any such ingredient or combination of two or more of such ingredients used, the weight of nonfat milk solids is not more than 2.43 times and not less than 1.20 times the weight of milk fat therein.

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

#### **1555.0240 LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statements hereinafter prescribed showing the optional ingredients used shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter. When the food is flavored with an optional ingredient specified in part 1555.0210, item B, the label shall bear the statement "artificially flavored," "artificial flavoring added," "with artificial flavoring," "artificially flavored with \_\_\_\_\_," or "with \_\_\_\_\_, an artificial flavoring," the blank being filled in with the specific common name of the artificial flavoring used. When an optional ingredient specified in part 1555.0210, item C or D is used, the label shall bear the statement "emulsifier added" or "with added emulsifier."

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

#### **1555.0250 OPTIONAL ALKALI INGREDIENT.**

When any optional alkali ingredient specified in part 1555.0020 is used the label shall bear the statement "processed with alkali," but in lieu of the word "alkali" in such statement the specific common name of the optional alkali ingredient may be used. Label statements prescribed by part 1555.0240 may be combined, as for example, "with added emulsifier and ethyl vanillin, an artificial flavoring."

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

**1555.0260 SKIM MILK CHOCOLATE, SWEET SKIM MILK CHOCOLATE, SKIM MILK CHOCOLATE COATING, SWEET SKIM MILK CHOCOLATE COATING.**

Skim milk chocolate, sweet skim milk chocolate, skim milk chocolate coating, sweet skim milk chocolate coating conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for milk chocolate by parts 1555.0210 to 1555.0250, except that: the dairy ingredients used are limited to skim milk, concentrated skim milk, evaporated skim milk, sweetened condensed skim milk, non-fat dry milk solids, and any combination of two or more of these; and the finished skim milk chocolate contains less than 3.66 percent by weight of milk fat and instead of milk solids it contains not less than 12 percent by weight of skim milk solids.

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

**1555.0265 BUTTERMILK CHOCOLATE, BUTTERMILK CHOCOLATE COATING.**

Buttermilk chocolate, buttermilk chocolate coating conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for milk chocolate by parts 1555.0210 to 1555.0250, except that: the dairy ingredients used are limited to sweet cream buttermilk, concentrated sweet cream buttermilk, dried sweet cream buttermilk, or any combination of two or all of these; the finished buttermilk chocolate contains less than 3.66 percent by weight of milk fat and instead of milk solids it contains not less than 12 percent by weight of sweet cream buttermilk solids.

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

**1555.0270 MIXED DAIRY PRODUCT CHOCOLATES, MIXED DAIRY PRODUCT CHOCOLATE COATINGS.**

The articles for which definitions and standards of identity are prescribed by this part are the foods each of which conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for milk chocolate by parts 1555.0210 to 1555.0250, except that:

A. The dairy ingredient used in each such article is a mixture of two or more of the following four components:

(1) any dairy ingredient or combination of such ingredients specified in part 1555.0230 which is within the limits of the ratios specified therein for nonfat milk solids to milk fat;

(2) one or more of the five skim milk ingredients specified in part 1555.0260;

or

(3) one or more of the three sweet cream buttermilk ingredients specified in part 1555.0265; or malted milk.

B. Each of the finished articles may contain less than 3.66 percent by weight of milk fat and instead of milk solids it contains not less than 12 percent by weight of milk constituent solids of the components used. The quantity of each component used in any such mixture is such that no component contributes less than one-third of the weight of milk constituent solids contributed by that component used in largest proportion. When any such mixture is of item A, subitems (1) and (2), the quantity of nonfat milk solids in such mixture is more than 2.43 times the quantity of milk fat therein. For the purposes of part 1555.0280, the designation of each of the components listed is respectively "milk," "skim milk," "buttermilk," and "malted milk."

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

**1555.0280 NAME OF EACH ARTICLE.**

The name of each such article is "chocolate" or "chocolate coating" preceded by the designations prescribed by part 1555.0270 for each component of the dairy ingredients used, such designations appearing in the order of predominance, if any, of the weight of milk constituent solids in each such component, for example, "milk and skim milk chocolate."

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

**1555.0290 SWEET CHOCOLATE AND VEGETABLE FAT OTHER THAN CACAO FAT COATING.**

Sweet chocolate and vegetable fat other than cacao fat coating conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for sweet chocolate by parts 1555.0140 to 1555.0200, except that:

A. in its preparation is added one or any combination of two or more vegetable food oils or vegetable food fats, other than cacao fat, which oil, fat, or combination may be hydrogenated and which has a melting point lower than that of cacao fat; and

B. the requirement of part 1555.0140 that the milk constituent solids be less than 12 percent by weight does not apply. The provisions of this part shall not be construed as applicable to any article by reason of the addition thereto of a vegetable food fat other than cacao fat as a carrier of emulsifying ingredients, as authorized and within the limit prescribed by part 1555.0140.

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

**1555.0300 SWEET COCOA AND VEGETABLE FAT OTHER THAN CACAO FAT COATING.**

Sweet cocoa and vegetable fat other than cacao fat coating conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for sweet chocolate by parts 1555.0140 to 1555.0200, except that:

A. In its preparation cocoa is used instead of chocolate liquor in such quantity that the finished food contains not less than 6.8 percent by weight of the nonfat cacao portion of such cocoa, calculated by subtracting from the weight of cocoa used the weight of cacao fat therein and the weight therein of alkali and seasoning ingredients, if any, dividing the remainder by the weight of the finished food and multiplying the quotient by 100. For the purposes of this part the term "cocoa" means breakfast cocoa, cocoa, lowfat cocoa, or any mixture of two or more of these.

B. In its preparation is added one or any combination of two or more vegetable food oils, vegetable food fats, or vegetable food stearins, other than cacao fat, which oil, fat, stearin, or combination has a melting point higher than that of cacao fat. Any such oil or fat may be hydrogenated.

C. The requirement of part 1555.0140 that the milk constituent solids be less than 12 percent by weight does not apply.

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

**WHEAT FLOUR AND RELATED PRODUCTS****1555.0310 FLOUR, WHITE FLOUR, WHEAT FLOUR, PLAIN FLOUR.**

"Flour," "white flour," "wheat flour," "plain flour" is the food prepared by grinding and bolting cleaned wheat other than durum wheat and red durum wheat; to compensate for any natural deficiency of enzymes, malted wheat, malted wheat flour, malted barley flour, or any combination of two or more of these, may be used, but the quantity of malted barley flour so used is not more than 0.25 percent. One of the cloths through which the flour is bolted has openings not larger than those of woven wire cloth designated "149 micron (No. 100)" in table I of "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the U.S. Department of Commerce, National Bureau of Standards. The flour is freed from bran coat or bran coat and germ to such extent that the percent of ash therein, calculated to a moisture-free basis, is not more than the sum of 1/20 of the percent of protein therein, calculated to a moisture-free basis, and 0.35. Its moisture content is not more than 15 percent.

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

**1555.0320 OPTIONAL BLEACHING INGREDIENTS.**

Unless such addition conceals damage or inferiority of the flour or makes it appear better or of greater value than it is, one or any combination of two or more of the following optional bleaching ingredients may be added in a quantity not more than sufficient for bleaching or in case such ingredient has an artificial aging effect in a quantity not more than suffi-



cient for bleaching and such artificial aging effect: oxides of nitrogen; chlorine; nitrosyl chloride; chlorine dioxide; and one part by weight of benzoyl peroxide mixed with not more than six parts by weight of one or any mixture of two or more of the following: potassium alum, calcium sulfate, magnesium carbonate, sodium aluminum sulfate, dicalcium phosphate, tricalcium phosphate, starch, calcium carbonate.

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

#### 1555.0330 LABEL STATEMENT OF OPTIONAL INGREDIENTS.

When any optional bleaching ingredient is used, the label shall bear the word "bleached." Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the word "bleached" shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter; except that where such name is a part of a trademark or brand, other written, printed, or graphic matter, which is also a part of such trademark or brand, may so intervene if the word "bleached" is in such juxtaposition with such trademark or brand as to be conspicuously related to such name.

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

#### 1555.0340 DETERMINATION OF ASH, PROTEIN, AND MOISTURE.

Subpart 1. **Scope.** For the purposes of parts 1555.0310 to 1555.0340, the following terms have the meanings given them in this part.

Subp. 2. **Ash.** Ash is determined by the method prescribed in the book "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," fifth edition, 1940, page 212 under "Method I — Official." (Ed. note, eighth edition, 1955, page 207, section 13.6). Ash is calculated to a moisture-free basis by subtracting the percent of moisture in the flour from 100, dividing the remainder into the percent of ash, and multiplying the quotient by 100.

Subp. 3. **Protein.** Protein is 5.7 times the nitrogen as determined by the method prescribed in such book on page 26 under "Kjeldahl-Gunning-Arnold Method — Official" (Ed. note, eighth edition, 1955, page 12 "Improved Kjeldahl method for nitrate-free samples," section 2.23). Protein is calculated to a moisture-free basis by subtracting the percent of moisture in the flour from 100, dividing the remainder into the percent of protein and multiplying the quotient by 100.

Subp. 4. **Moisture.** Moisture is determined by the method prescribed in such book on page 211 (Ed. note, eighth edition, 1955, page 206, sections 13.2, 13.3), under "Vacuum Oven Method — Official."

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

#### 1555.0350 ENRICHED FLOUR.

Enriched flour conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for flour by parts 1555.0310 to 1555.0340, except that:

A. it contains in each pound not less than 2.0 milligrams and not more than 2.5 milligrams of thiamine, not less than 1.2 milligrams and not more than 1.5 milligrams of riboflavin, not less than 16.0 milligrams and not more than 20.0 milligrams of niacin or niacinamide, not less than 13.0 milligrams and not more than 16.5 milligrams of iron (Fe);

B. vitamin D may be added in such quantity that each pound of the finished enriched flour contains not less than 250 U.S.P. units and not more than 1,000 U.S.P. units of vitamin D;

C. calcium may be added in such quantity that each pound of the finished enriched flour contains not less than 500 milligrams and not more than 625 milligrams of calcium (Ca), except that enriched flour may be acidified with monocalcium phosphate irrespective of the minimum limit for calcium (Ca) prescribed in this item;

D. it may contain not more than five percent by weight of wheat germ or partly defatted wheat germ; and

E. in determining whether the ash content complies with the requirements of part 1555.0340 allowance is made for ash resulting from any added iron or salts of iron or cal-

cium. Iron and calcium may be added only in forms which are harmless and assimilable. The substances referred to in items A and B may be added in a harmless carrier which does not impair the enriched flour; such carrier is used only in the quantity necessary to effect an intimate and uniform admixture of such substances with the flour.

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

#### **1555.0360 BROMATED FLOUR.**

Bromated flour conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for flour by parts 1555.0310 to 1555.0340, except that potassium bromate is added in a quantity not exceeding 50 parts to each million parts of the finished bromated flour, and is added only to flours whose baking qualities are improved by such addition.

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

#### **1555.0370 ENRICHED BROMATED FLOUR.**

Enriched bromated flour conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for enriched flour by part 1555.0350, except that potassium bromate is added in a quantity not exceeding 50 parts to each million parts of the finished enriched bromated flour and is added only to enriched flours whose baking qualities are improved by such addition.

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

#### **1555.0380 DURUM FLOUR.**

“Durum flour” is the food prepared by grinding and bolting cleaned durum wheat. One of the cloths through which such flour is bolted has openings not larger than those of woven wire cloth designated “149 micron (No. 100)” in table I of “Standard Specifications for Sieves,” published March 1, 1940, in L.C. 584 of the United States Department of Commerce, National Bureau of Standards. It is freed from bran coat and germ to such extent that the percent of ash therein, calculated to a moisture-free basis, is not more than 1.5 percent. Its moisture content is not more than 15 percent. For the purposes of this part, ash and moisture are determined by the methods therefore referred to in part 1555.0340.

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

#### **1555.0390 SELF-RISING FLOUR, SELF-RISING WHITE FLOUR, SELF-RISING WHEAT FLOUR.**

“Self-rising flour,” “self-rising white flour,” “self-rising wheat flour” is an intimate mixture of flour, sodium bicarbonate, and the acid-reacting substance monocalcium phosphate or sodium acid pyrophosphate or both. It is seasoned with salt. When it is tested by the method prescribed in part 1555.0410 not less than 0.5 percent of carbon dioxide is evolved. The acid-reacting substance is added in sufficient quantity to neutralize the sodium bicarbonate. The combined weight of such acid-reacting substance and sodium bicarbonate is not more than 4.5 parts to each 100 parts of flour used. Subject to the conditions and restrictions prescribed by parts 1555.0310 and 1555.0320, the bleaching ingredients specified in part 1555.0320 may be added as optional ingredients. If the flour used in making the self-rising flour is bleached, the optional bleaching ingredient used therein (see part 1555.0320) is also an optional ingredient of the self-rising flour.

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

#### **1555.0400 OPTIONAL BLEACHING INGREDIENTS LABELING.**

When any optional bleaching ingredient is used, the label shall bear the word “bleached.” Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the word “bleached” shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter; except that where such name is a part of a trademark or brand, other written, printed, or graphic matter, which is also a part of such trademark or brand, may so intervene if the word “bleached” is in such juxtaposition with such trademark or brand as to be conspicuously related to such name.

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

**1555.0410 METHOD.**

The method referred to in part 1555.0390 is the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," fifth edition, 1940, beginning on page 186 (Ed. note, eighth edition, 1955, page 127, sections 17.2 and 17.3), under "Gasometric Method with Chittick's Apparatus — Official," except that the following procedure is substituted for the procedure specified therein under "6 — Determination":

A. Weigh 17 grams of the official sample into flask A, add 15 to 20 glass beads (4 to 6 millimeters diameter) and connect this flask with the apparatus (figure 22). Open stopcock C and by means of the leveling bulb E bring the displacement solution to the 25 cubic centimeters graduation above the zero mark. This 25 cubic centimeters is a partial allowance for the volume of acid to be used in the decomposition. Allow the apparatus to stand one to two minutes to ensure that the temperature and pressure within the apparatus are the same as those of the room. Close the stopcock, lower the leveling bulb somewhat to reduce the pressure within the apparatus, and slowly run into the decomposition flask from burette F.45 cubic centimeters of sulfuric acid (1 + 5). To prevent the liberated carbon dioxide from escaping through the acid burette into the air, keep the displacement solution in the leveling bulb at all times during the decomposition at a lower level than that in the gas-measuring tube. Rotate and then vigorously agitate the decomposition flask for three minutes to mix the contents intimately. Allow to stand for ten minutes to bring to equilibrium. Equalize the pressure in the measuring tube by means of the leveling bulb and read the volume of gas from the zero point on the tube. Deduct 20 cubic centimeters from this reading (this 20 cubic centimeters together with previous allowance of 25 cubic centimeters compensates for the 45 cubic centimeters acid used in the decomposition). Observe the temperature of the air surrounding the apparatus and also the barometric pressure and multiply the number of cubic centimeters of gas evolved by the factor given in table 24 — chapter XLIII (Ed. note, eighth edition, 1955, section 42.29) for the temperature and pressure observed. Divide the corrected reading by 100 to obtain the apparent percent by weight of carbon dioxide in the official sample.

B. Correct the apparent percent of carbon dioxide to compensate for varying atmospheric conditions by immediately assaying a synthetic sample by the same method in the same apparatus.

C. Prepare the synthetic sample with 16.2 grams of flour, 0.30 grams of monocalcium phosphate, 0.30 grams of salt, and a sufficient quantity of sodium bicarbonate U.S.P. dried over sulfuric acid to yield the amount of carbon dioxide recovered in assay of official sample. Determine this quantity of multiplying weight of carbon dioxide recovered in assay of official sample by 1.91.

D. Divide the weight of carbon dioxide recovered from synthetic sample by weight of carbon dioxide contained in sodium bicarbonate used.

E. Divide the quotient into the apparent percent of carbon dioxide in official sample to obtain percent of carbon dioxide evolved from the official sample.

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

**1555.0420 ENRICHED SELF-RISING FLOUR.**

Enriched self-rising flour conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for self-rising flour by parts 1555.0390 to 1555.0410, except that:

A. It contains in each pound not less than 2.0 milligrams and not more than 2.5 milligrams of thiamine, not less than 1.2 milligrams and not more than 1.5 milligrams of riboflavin, not less than 16.0 milligrams and not more than 20.0 milligrams of niacin or niacinamide, not less than 13.0 milligrams and not more than 16.5 milligrams of iron (Fe), not less than 500 milligrams and not more than 1,500 milligrams of calcium (Ca).

B. Vitamin D may be added in such quantity that each pound of the finished enriched self-rising flour contains not less than 250 U.S.P. units and not more than 1,000 U.S.P. units of vitamin D.

C. It may contain not more than five percent by weight of wheat germ or partly defatted wheat germ.

D. When calcium is added as dicalcium phosphate, such dicalcium phosphate is also considered to be an acid-reacting substance.

E. When calcium is added as carbonate, the method set forth in part 1555.0410 does not apply as a test for carbon dioxide evolved; but in such case the quantity of carbon dioxide evolved under ordinary conditions of use of the enriched flour is not less than 0.5 percent of the weight thereof. Iron and calcium may be added only in forms which are harmless and assimilable. The substances referred to in items A and B may be added in a harmless carrier which does not impair the enriched self-rising flour; such carrier is used only in the quantity necessary to effect an intimate and uniform admixture of such substances with the flour.

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

#### **1555.0430 PHOSPHATED FLOUR, PHOSPHATED WHITE FLOUR, PHOSPHATED WHEAT FLOUR.**

“Phosphated flour,” “phosphated white flour,” or “phosphated wheat flour” conforms to the definition and standard of identity and is subject to the requirements for label declaration of optional ingredients prescribed for flour by parts 1555.0310 to 1555.0340, except that: monocalcium phosphate is added in a quantity not less than 0.25 percent and not more than 0.75 percent of the weight of the finished phosphated flour; and in determining whether the ash content complies with the requirements of this part, allowance is made for the added monocalcium phosphate.

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

#### **1555.0440 WHOLE WHEAT FLOUR, GRAHAM FLOUR, ENTIRE WHEAT FLOUR.**

“Whole wheat flour,” “graham flour,” “entire wheat flour” is the food prepared by so grinding cleaned wheat other than durum wheat and red durum wheat that, when tested by the method prescribed in part 1555.0470, not less than 90 percent passes through a No. 8 sieve and not less than 50 percent passes through a No. 20 sieve. The proportions of the natural constituents of such wheat, other than moisture, remain unaltered. To compensate for any natural deficiency of enzymes, malted wheat, malted wheat flour, malted barley flour, or any combination of two or more of these may be used; but the quantity of malted wheat flour so used is not more than 0.5 percent and the quantity of malted barley flour so used is not more than 0.25 percent. The moisture content of whole wheat flour is not more than 15 percent. Unless such addition conceals damage or inferiority of the whole wheat flour or makes it appear better or of greater value than it is, the optional bleaching ingredient chlorine dioxide, chlorine, or a mixture of nitrosyl chloride and chlorine may be added in a quantity not more than sufficient for bleaching and artificial aging effects.

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

#### **1555.0450 LABEL STATEMENT OF OPTIONAL BLEACHING INGREDIENT.**

When any optional bleaching ingredient is used, the label shall bear the word “bleached.” Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the word “bleached” shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter; except that where such name is a part of a trademark or brand, other written, printed, or graphic matter, which is also a part of such trademark or brand, may so intervene if the word “bleached” is in such juxtaposition with such trademark or brand as to be conspicuously related to such name.

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

#### **1555.0460 DETERMINATION OF MOISTURE.**

For the purposes of parts 1555.0440 to 1555.0470: moisture is determined by the method prescribed in “Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists,” fifth edition, 1940, page 211 (Ed. note, eighth edition, 1955, page 206, sections 13.2, 13.3). Under “Vacuum Oven Method — Official.”

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

**1555.0470 FOOD DEFINITIONS AND STANDARDS**

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**1555.0470 METHOD.**

The method referred to in part 1555.0440 is as follows: use No. 8 and No. 20 sieves, having standard eight inch full height frames, complying with the specifications for wire cloth and sieve frames in "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the U.S. Department of Commerce, National Bureau of Standards. Fit a No. 8 sieve into a No. 20 sieve. Attach bottom pan to the No. 20 sieve. Pour 100 grams of the sample into the No. 8 sieve. Attach cover and hold the assembly in a slightly inclined position with one hand. Shake the sieves by striking the sides against the other hand with an upward stroke, at the rate of about 150 times per minute. Turn the sieves about one-sixth of a revolution, each time in the same direction, after each 25 strokes. Continue shaking for two minutes. Weigh the material which fails to pass through the No. 8 sieve and the material which passes through the No. 20 sieve.

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

**1555.0480 BROMATED WHOLE WHEAT FLOUR.**

Bromated whole wheat flour conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for whole wheat flour by parts 1555.0440 to 1555.0470, except that potassium bromate is added in a quantity not exceeding 75 parts to each million parts of finished bromated whole wheat flour.

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

**1555.0490 WHOLE DURUM WHEAT FLOUR.**

Whole durum wheat flour conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for whole wheat flour by parts 1555.0440 to 1555.0470, except that cleaned durum wheat, instead of cleaned wheat other than durum wheat and red durum wheat, is used in its preparation.

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

**1555.0500 CRUSHED WHEAT, COARSE GROUND WHEAT.**

"Crushed wheat," "coarse ground wheat" is the food prepared by so crushing cleaned wheat other than durum wheat and red durum wheat that, when tested by the method prescribed in definition part 1555.0470, 40 percent or more passes through a No. 8 sieve and less than 50 percent passes through a No. 20 sieve. The proportions of the natural constituents of such wheat, other than moisture, remain unaltered. Crushed wheat contains not more than 15 percent of moisture as determined by the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," fifth edition, 1940, page 353 (Ed. note, eighth edition, 1955, page 367, sections 22.2 and 22.3), under "Preparation of Sample — Official" and "Moisture I. Drying with Heat — Official."

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

**1555.0510 CRACKED WHEAT.**

Cracked wheat is the food prepared by so cracking or cutting into angular fragments cleaned wheat other than durum wheat and red durum wheat that, when tested by the method prescribed in part 1555.0470, not less than 90 percent passes through a No. 8 sieve and not more than 20 percent passes through a No. 20 sieve. The proportions of the natural constituents of such wheat, other than moisture, remain unaltered. Cracked wheat contains not more than 15 percent of moisture as determined by the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," fifth edition, 1940, page 353 (Ed. note, eighth edition, 1955, page 367, sections 22.2 and 22.3), under "Preparation of Sample — Official" and "Moisture I. Drying with Heat — Official."

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

**1555.0520 FARINA.**

Farina is the food prepared by grinding and bolting cleaned wheat, other than durum wheat and red durum wheat, to such fineness that, when tested by the method prescribed in part 1555.0530 it passes through a No. 20 sieve, but not more than three percent passes through a No. 100 sieve. It is freed from bran coat or bran coat and germ to such extent that the

percent of ash therein, calculated to a moisture-free basis, is not more than 0.6 percent. Its moisture content is not more than 15 percent. For the purposes of parts 1555.0520 and 1555.0530, ash and moisture are determined by the methods therefor referred to in part 1555.0340.

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

#### **1555.0530 METHOD.**

The method referred to in part 1555.0520 is as follows: use No. 20 and No. 100 sieves, having standard eight inch full height frames, complying with the specifications for wire cloth and sieve frames in "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the U.S. Department of Commerce, National Bureau of Standards. Fit a No. 20 sieve into a No. 100 sieve. Attach bottom pan to the No. 100 sieve. Pour 100 grams of the sample into the No. 20 sieve. Attach cover and hold the assembly in a slightly inclined position with one hand. Shake the sieves by striking the sides against the other hand with an upward stroke at the rate of about 150 times per minute. Turn the sieves about one-sixth of a revolution, each time in the same direction, after each 25 strokes. Continue shaking for two minutes. Weigh the material which fails to pass through the No. 20 sieve and the material which passes through the No. 100 sieve.

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

#### **1555.0540 ENRICHED FARINA.**

Enriched farina conforms to the definition and standard of identity prescribed for farina by parts 1555.0520 and 1555.0530, except that:

A. It contains in each pound not less than 2.0 milligrams and not more than 2.5 milligrams of thiamine, not less than 1.2 milligrams and not more than 1.5 milligrams of riboflavin, not less than 16.0 milligrams and not more than 20.0 milligrams of niacin or niacinamide and not less than 13.0 milligrams of iron (Fe).

B. Vitamin D may be added in such quantity that each pound of the finished enriched farina contains not less than 250 U.S.P. units of the optional ingredient vitamin D.

C. Calcium may be added in such quantity that each pound of the finished enriched farina contains not less than 500 milligrams of the optional ingredient calcium (Ca).

D. It may contain not more than eight percent by weight of the optional ingredient wheat germ or partly defatted wheat germ.

E. It may contain not less than 0.5 percent and not more than one percent by weight of the optional ingredient disodium phosphate.

F. In determining whether the ash content complies with the requirements of parts 1555.0540 and 1555.0550 allowance is made for ash resulting from any added iron or salts of iron or calcium or from any added disodium phosphate or from any added wheat germ or partly defatted wheat germ. Iron and calcium may be added only in forms which are harmless and assimilable. Dried irradiated yeast may be used as a source of vitamin D. The substances referred to in items A and B may be added in a harmless carrier which does not impair the enriched farina; such carrier is used only in the quantity necessary to effect an intimate and uniform admixture of such substances with the farina.

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

#### **1555.0550 LABEL STATEMENT OF OPTIONAL INGREDIENT.**

When the optional ingredient disodium phosphate is used, the label shall bear the statement "disodium phosphate added for quick cooking." Whenever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, such statement shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter; except that where such name is a part of a trademark or brand, other written, printed, or graphic matter, which is also a part of such trademark or brand, may so intervene if such statement is in such juxtaposition with such trademark or brand as to be conspicuously related to such name.

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

**1555.0560 SEMOLINA.**

"Semolina" is the food prepared by grinding and bolting cleaned durum wheat to such fineness that, when tested by the method prescribed in part 1555.0530, it passes through a No. 20 sieve, but not more than three percent passes through a No. 100 sieve. It is freed from bran coat or bran coat and germ to such extent that the percent of ash therein, calculated to a moisture-free basis, is not more than 0.92 percent. Its moisture content is not more than 15 percent. For the purposes of this part, ash and moisture are determined by the methods therefor referred to in part 1555.0340.

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

**CORN FLOUR AND RELATED PRODUCTS****1555.0570 WHITE CORN MEAL.**

"White corn meal" is the food prepared by so grinding cleaned white corn that when tested by the method prescribed in part 1555.0590 not less than 95 percent passes through a No. 12 sieve, not less than 45 percent through a No. 25 sieve, but not more than 35 percent through a No. 72 grits gauze. Its moisture content is not more than 15 percent. In its preparation coarse particles of the ground corn may be separated and discarded or reground and recombined with all or part of the material from which they were separated, but in any such case the crude fiber content of the finished corn meal is not less than 1.2 percent and not more than that of the cleaned corn from which it was ground, and its fat content does not differ more than 0.3 percent from that of such corn. The contents of crude fiber and fat in all the foregoing provisions relating thereto are on a moisture-free basis.

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

**1555.0580 DETERMINATION OF MOISTURE, FAT, AND CRUDE FIBER.**

For the purposes of parts 1555.0570 to 1555.0590, moisture is determined by the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," sixth edition, page 259, sections 20.70 and 20.71 (Ed. note, eighth edition, 1955, page 220, sections 13.54 and 13.55), fat is determined by the method prescribed on pages 259 and 260, sections 20.70 and 20.73 (Ed. note, eighth edition, 1955, page 220, sections 13.54 and 13.59); and crude fiber determined by the method prescribed on pages 259 and 260, sections 20.70 and 20.74 (Ed. note, eighth edition, 1955, page 220, sections 13.54 and 13.57).

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

**1555.0590 METHOD.**

Subpart 1. **General.** The method referred to in part 1555.0570 is as follows:

Subp. 2. **Sieves.** Use No. 12 and No. 25 sieves, having standard eight inch diameter, full height frames, complying with the specifications for wire cloth and sieve frames in "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the Bureau of Standards, U.S. Department of Commerce. A sieve with frame of the same dimensions as the Nos. 12 and 25 and fitted with 72 XXX grits gauze is used as the third sieve. It is referred to hereafter as the No. 72 sieve. The 72 XXX grits gauze has openings equivalent in size with those of No. 70 woven wire cloth, complying with specifications for such cloth contained in such "Standard Specifications for Sieves." Attach bottom pan to No. 72 sieve. Fit the No. 25 sieve into the No. 72 sieve and the No. 12 sieve into the No. 25 sieve.

Subp. 3. **Shaking.** Pour 100 grams of sample into the No. 12 sieve, attach cover and hold the assembly in a slightly inclined position and shake the assembly of sieves by striking the sides against one hand with an upward stroke at the rate of about 150 times per minute. Turn the assembly of sieves about one-sixth of a revolution, each time in the same direction, after each 25 strokes. Continue shaking for two minutes.

Subp. 4. **Weighing, cleaning, reshaking.** Weigh separately the material remaining on each sieve and in the pan, and calculate each weight as percent of sample. Sometimes when meals are tested, fine particles clog the sieve openings. If any sieve is clogged by fine material smaller than its openings, empty the contents onto a piece of paper. Remove the entrapped material on the bottom of the sieve by a hair brush and add to the sieve below. In like manner,

clean the adhering material from inside the sieve and add to the material on the paper. Return mixture on the paper to the sieve, reassemble the sieves, and shake in the same manner as before for one minute. Repeat cleaning procedure if necessary until a five gram or less loss in weight occurs in any sieve during a one-minute shaking.

Subp. 5. **Determining percent of sample passed.** The percent of sample passing through No. 12 sieve shall be determined by subtracting from 100 percent, the percent of material remaining on the No. 12 sieve. The percent passing through a No. 25 sieve shall be determined by adding the percents remaining on the No. 72 sieve and the percent in pan. The percent in the pan shall be considered as the percent passing through a No. 72 XXX grits gauze.

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

#### **1555.0600 YELLOW CORN MEAL.**

“Yellow corn meal” conforms to the definition and standard of identity prescribed by parts 1555.0570 to 1555.0590 for white corn meal, except that cleaned yellow corn is used instead of cleaned white corn.

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

#### **1555.0610 BOLTED WHITE CORN MEAL.**

“Bolted white corn meal” is the food prepared by so grinding and sifting cleaned white corn that: its crude fiber content is less than 1.2 percent but its fat content is not less than 2.25 percent; and when tested by the method prescribed in part 1555.0590, except that a No. 20 standard sieve is used instead of the No. 12 sieve, not less than 95 percent passes through a No. 20 sieve, not less than 45 percent through a No. 25 sieve, but not more than 25 percent through No. 72 XXX grits gauze. Its moisture content is not more than 15 percent. In its preparation particles of ground corn which contain germ may be separated, reground, and recombined with all or part of the material from which it was separated; but in any such case the fat content of the finished bolted white corn meal does not exceed by more than 0.3 percent the fat content of the cleaned corn from which it was ground. The contents of crude fiber and fat in all the foregoing provisions relating thereto are on a moisture free basis. For the purposes of this part, moisture, fat, and crude fiber are determined by the methods therefore referred to in part 1555.0580.

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

#### **1555.0620 BOLTED YELLOW CORN MEAL.**

“Bolted yellow corn meal” conforms to the definition and standard of identity prescribed by part 1555.0610 for bolted white corn meal, except that cleaned yellow corn is used instead of cleaned white corn.

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

#### **1555.0630 DEGERMINATED WHITE CORN MEAL, DEGERMED WHITE CORN MEAL.**

“Degerminated white corn meal,” “degermed white corn meal” is the food prepared by grinding cleaned white corn and removing bran and germ so that on a moisture-free basis, its crude fiber content is less than 1.2 percent and its fat content is less than 2.25 percent; and when tested by the method prescribed in part 1555.0590, except that a No. 20 standard sieve is used instead of a No. 12 sieve, not less than 95 percent passes through a No. 20 sieve, not less than 45 percent through a No. 25 sieve, but not more than 25 percent through No. 72 XXX grits gauze. Its moisture content is not more than 15 percent. For the purposes of this part, moisture, fat, and crude fiber are determined by methods therefore referred to in part 1555.0580.

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

#### **1555.0640 DEGERMINATED YELLOW CORN MEAL, DEGERMED YELLOW CORN MEAL.**

Degerminated yellow corn meal conforms to the definition and standard of identity prescribed by part 1555.0630, for degerminated white corn meal except that cleaned yellow corn is used instead of cleaned white corn.

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



**1555.0650 SELF-RISING WHITE CORN MEAL.**

Self-rising white corn meal is an intimate mixture of white corn meal, sodium bicarbonate, and the acid-reacting substance monocalcium phosphate. It is seasoned with salt. When it is tested by the method prescribed in part 1555.0660, not less than 0.5 percent of carbon dioxide is evolved. The acid-reacting substance is added in sufficient quantity to neutralize the sodium bicarbonate. The combined weight of such acid-reacting substance and sodium bicarbonate is not more than 4.5 parts to each 100 parts of white corn meal used.

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

**1555.0660 METHOD.**

The method referred to in part 1555.0650 is the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," sixth edition, beginning on page 208 (Ed. note, eighth edition, 1955, page 127, sections 7.2 and 7.3), under "Gasometric Method (2) with Chittick's Apparatus — Official," except that the following procedure is substituted for the procedure specified therein under "17.6 — Determination":

A. Weigh 17 grams of the official sample into flask A, add 15 to 20 glass beads (4 to 6 millimeters diameter) and connect this flask with the apparatus (figure 25). Open stopcock C and by means of the leveling bulb E bring the displacement solution to the 25 cubic centimeters graduation above the zero mark. This 25 cubic centimeters is a partial allowance for the volume of acid to be used in the decomposition. Allow the apparatus to stand one to two minutes to ensure that the temperature and pressure within the apparatus are the same as those of the room. Close the stopcock; lower the leveling bulb somewhat to reduce the pressure within the apparatus and slowly run into the decomposition flask from burette F, 45 cubic centimeters of sulfuric acid (1 + 5). To prevent the liberated carbon dioxide from escaping through the acid burette into the air, keep the displacement solution in the leveling bulb at all times during the decomposition at a lower level than that in the gas measuring tube. Rotate and then vigorously agitate the decomposition flask for three minutes to mix the contents intimately. Allow to stand for ten minutes to bring to equilibrium. Equalize the pressure in the measuring tube by means of the leveling bulb and read the volume of gas from the zero point on the tube. Deduct 20 cubic centimeters from this reading (this 20 cubic centimeters together with previous allowance of 25 cubic centimeters compensates for the 45 cubic centimeters acid used in the decomposition). Observe the temperature of the air surrounding the apparatus and also the barometric pressure and multiply the number of cubic centimeters of gas evolved by the factor given in Table 44.30 (Ed. note, eighth edition, 1955, section 42.29), Reference Tables for the temperature and pressure observed. Divide the corrected reading by 100 to obtain the apparent percent by weight of carbon dioxide in the official sample.

B. Correct the apparent percent of carbon dioxide to compensate for varying atmospheric conditions by immediately assaying a synthetic sample by the same method in the same apparatus.

C. Prepare the synthetic sample with 16.2 grams of corn meal, 0.30 gram of monocalcium phosphate, 0.30 gram of salt, and a sufficient quantity of sodium bicarbonate U.S.P. (dried over sulfuric acid) to yield the amount of carbon dioxide recovered in assay of official sample. Determine this quantity by multiplying weight of carbon dioxide recovered in assay of official sample by 1.91.

D. Divide the weight of carbon dioxide recovered from synthetic sample by weight of carbon dioxide contained in sodium bicarbonate used.

E. Divide the quotient into the apparent percent of carbon dioxide in official sample to obtain percent of carbon dioxide evolved from the official sample.

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

**1555.0670 SELF-RISING YELLOW CORN MEAL.**

Self-rising yellow corn meal conforms to the definition and standard of identity prescribed by parts 1555.0650 and 1555.0660 for self-rising white corn meal, except that yellow corn meal is used instead of white corn meal.

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

**1555.0680 WHITE CORN FLOUR.**

"White corn flour" is the food prepared by so grinding and bolting cleaned white corn that when tested by the method prescribed in part 1555.0690, not less than 98 percent passes through a No. 50 sieve and not less than 50 percent passes through No. 70 woven wire cloth. Its moisture content is not more than 15 percent. In its preparation part of the ground corn may be removed, but in any such case, the content on a moisture-free basis of neither the crude fiber nor fat in the finished white corn flour exceeds the content on a moisture-free basis of such substance in the cleaned corn from which it was ground. For the purposes of this part and part 1555.0690 moisture, fat, and crude fiber are determined by methods therefore referred to in part 1555.0580.

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

**1555.0690 METHOD.**

The method referred to in part 1555.0680 is as follows:

A. Weigh five grams of sample into a tared truncated metal cone (top diameter five centimeters, bottom diameter two centimeters, height four centimeters), fitted at bottom with 70 mesh wire cloth complying with the specifications for No. 70 wire cloth in "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the Bureau of Standards, U.S. Department of Commerce.

B. Attach cone to a suction flask. Wash with 150 milliliters of petroleum ether applied in a small stream without suction, while gently stirring the sample with a small glass rod. Apply suction for two minutes after washing is completed, then shake the cone for two minutes with a vigorous horizontal motion, striking the side against the hand, and then weigh. The decrease in weight of sample, calculated as percent by weight of sample shall be considered the percent passing through No. 70 wire cloth.

C. Transfer the residue from cone to a No. 50 sieve having a standard eight inch diameter full height frame, complying with the specifications for wire cloth and sieve frame in said "Standard Specifications for Sieves." Shake for two minutes with a vigorous horizontal motion, striking the side against the hand; remove and weigh the residue; calculate the weight of residue as percent by weight of sample and subtract from 100 percent to obtain the percent of sample passing through the No. 50 sieve.

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

**1555.0700 YELLOW CORN FLOUR.**

Yellow corn flour conforms to the definition and standard of identity prescribed by parts 1555.0680 and 1555.0690 for white corn flour except that cleaned yellow corn is used instead of cleaned white corn.

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

**1555.0710 GRITS, CORN GRITS, HOMINY GRITS.**

"Grits," "corn grits," "hominy grits" are the foods prepared by so grinding and sifting cleaned white corn, with removal of corn bran and germ, that on a moisture-free basis its crude fiber content is not more than 1.2 percent and its fat content is not more than 2.25 percent; and when tested by the method prescribed in part 1555.0720, not less than 95 percent passes through a No. 10 sieve but not more than 20 percent through a No. 25 sieve. For the purposes of this part and part 1555.0720 moisture, fat, and crude fiber are determined by methods therefore referred to in part 1555.0580.

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

**1555.0720 METHOD.**

The method referred to in part 1555.0710 is as follows:

A. Use No. 10 and No. 25 sieves, having standard eight-inch diameter full height frames, complying with the specifications for wire cloth and sieve frames in "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the Bureau of Standards, U.S. Department of Commerce. Attach bottom pan to No. 25 sieve. Fit the No. 10 sieve into the No. 25 sieve.

B. Pour 100 grams of sample into the No. 10 sieve, attach cover, and hold assembly in a slightly inclined position, shake the sieves by striking the sides against one hand with an

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upward stroke, at the rate of about 150 times per minute. Turn the sieves about one-sixth of a revolution each time in the same direction after each 25 strokes. Continue shaking for two minutes.

C. Weigh separately the material remaining on the No. 10 sieve and in the pan and calculate each weight as percent of sample.

D. The percent of sample passing through a No. 10 sieve shall be determined by subtracting from 100 percent the percent remaining on the No. 10 sieve. The percent of material in the pan shall be considered as the percent passing through a No. 25 sieve.

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

**1555.0730 YELLOW GRITS, YELLOW CORN GRITS, YELLOW HOMINY GRITS.**

“Yellow grits,” “yellow corn grits,” “yellow hominy grits,” conform to the definition and standard of identity prescribed by parts 1555.0710 and 1555.0720 for grits, except that yellow corn is used instead of cleaned white corn.

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

**1555.0740 QUICK GRITS, QUICK COOKING GRITS.**

“Quick grits,” “quick cooking grits” are the foods each of which conforms to the definition and standard of identity prescribed for a kind of grits by parts 1555.0710 and 1555.0720 or 1555.0730, except that in process of preparation the grits are lightly steamed and slightly compressed so as to fracture the particles. The name of each kind of grits is “quick” or “quick cooking” followed by the name of the kind of grits used which is prescribed in the definition and standard of identity therefore.

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

**1555.0750 ENRICHED CORN MEALS.**

“Enriched corn meals” are the foods each of which conforms to the definition and standard of identity prescribed for a kind of corn meal by parts 1555.0570 to 1555.0670 except that:

A. it contains in each pound not less than 2.0 milligrams and not more than 3.0 milligrams of thiamine, not less than 1.2 milligrams, and not more than 1.8 milligrams of riboflavin, not less than 16 milligrams and not more than 24 milligrams of niacin or niacinamide, and not less than 13 milligrams and not more than 26 milligrams of iron (Fe);

B. it may contain in each pound not less than 250 U.S.P. units and not more than 1,000 U.S.P. units of vitamin D; and

C. it may contain in each pound not less than 500 milligrams and not more than 750 milligrams of calcium (Ca). Iron and calcium may be added only in forms which are harmless and assimilable. The substances referred to in this part may be added in a harmless carrier which does not impair the enriched corn meal; such carrier is used only in the quantity necessary to effect an intimate and uniform admixture of such substances with the kind of corn meal used. Dried yeast in quantities not exceeding 1.5 percent by weight of the finished food may be used.

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

**1555.0760 NAME.**

The name of each kind of enriched corn meal is the word “enriched” followed by the name of the kind of corn meal used which is prescribed in the definition and standard of identity therefore.

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

**1555.0770 ENRICHED CORN GRITS.**

Enriched corn grits are the foods, each of which conforms to the definition and standard of identity prescribed for grits, yellow grits, or quick cooking grits by parts 1555.0710 to 1555.0740, except that:

A. It contains in each pound not less than 2.0 milligrams and not more than 3.0 milligrams of thiamine, not less than 1.2 milligrams, and not more than 1.8 milligrams of

riboflavin, not less than 16 milligrams and not more than 24 milligrams of niacin or niacinamide, not less than 13 milligrams and not more than 26 milligrams of iron (Fe);

B. It may contain in each pound not less than 250 U.S.P. units and not more than 1,000 U.S.P. units of vitamin D; and

C. It may contain in each pound not less than 500 milligrams and not more than 750 milligrams of calcium (Ca.). Iron and calcium may be added only in forms which are harmless and assimilable. The vitamins referred to in item A may be combined with harmless substances to render them insoluble in water if the water insoluble products are assimilable. The substances referred to in this part may be added in a harmless carrier; such carrier is used only in the quantity necessary to effect an intimate and uniform admixture of such substances with the kind of corn grits used. Dried yeast in quantities not exceeding 1.5 percent by weight of the finished food may be used. When the finished food is tested by the method prescribed in part 1555.0790, it complies with the requirements set forth therein.

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

#### 1555.0780 NAME.

The name of each kind of enriched corn grits is the word "enriched" followed by the name of the kind of corn grits used which is prescribed in the definition and standard of identity therefore.

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

#### 1555.0790 METHOD.

The method referred to in part 1555.0770 is as follows:

A. Transfer 100 grams of enriched grits to a two liter Erlenmeyer flask containing one liter of water at 25 degrees Celsius. Stopper the flask and rotate it for exactly one-half minute so that the grits are kept in motion. Allow the grits to settle for one-half minute then pour off 850 cubic centimeters of the water along with any floating or suspended matter.

B. Determine thiamine, riboflavin, niacin, and iron in the wet grits and water remaining in the flask. Calculate as milligrams per pound of the grits before rinsing.

C. The amounts found by this procedure are not less than 85 percent of the minimum amounts of thiamine, riboflavin, niacin, and iron prescribed by the standard for enriched grits.

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

### RICE AND RELATED PRODUCTS

#### 1555.0800 ENRICHED RICE.

Subpart 1. **General; B vitamins and iron.** The foods for which definitions and standards of identity are prescribed by parts 1555.0800 to 1555.0830 are forms of milled rice except rice coated with talc and glucose and known as coated rice, to which nutrients have been added so that each pound of the rice contains not less than 2.0 milligrams and not more than 4.0 milligrams of thiamine; not less than 1.2 milligrams and not more than 2.4 milligrams of riboflavin; not less than 16 milligrams and not more than 32 milligrams of niacin; and not less than 13 milligrams and not more than 26 milligrams of iron (Fe).

Subp. 2. **Vitamin D.** Each pound may contain not less than 250 U.S.P. units and not more than 1,000 U.S.P. units of vitamin D.

Subp. 3. **Calcium.** Each pound may contain not less than 500 milligrams and not more than 1,000 milligrams of calcium (ca). Calcium carbonate derived from the use of this substance in milling rice, when present in quantities that furnish less than 500 milligrams per pound of calcium, is considered a normal ingredient of the milled rice used and not an optional ingredient of the enriched rice unless such enriched rice is labeled to show it contains the optional ingredient of calcium. Iron and calcium may be added only in forms that are harmless and assimilable. The vitamins referred to in subparts 1 and 2 may be combined with harmless substances to render them insoluble in water, if the water-insoluble products are assimilable.

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

**1555.0810 CARRIER.**

The substances referred to in part 1555.0800 may be added in a harmless carrier. Such carrier is used only in the quantity necessary to affect an intimate and uniform mixture of such substances with the rice.

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

**1555.0815 VITAMINS AND MINERALS PRESENT AFTER WASHING.**

Unless the label of the food bears the statement "To retain vitamins do not rinse before or drain after cooking," immediately preceding or following the name of the food and in letters not less than one-fourth the point size of type used for printing the name of the food, but in no case less than eight point type and the label bears no cooking directions calling for washing or draining, the substances named in part 1555.0800 shall be present in such quantity or in such form that when the enriched rice is washed as prescribed in part 1555.0830, the washed rice contains not less than 85 percent of the minimum quantities of the substance named in part 1555.0800, subpart 1, as required for enriched rice; and in case any optional ingredients named in part 1555.0800, subparts 2 and 3 are used, the washed rice also contains not less than 85 percent of the minimum quantity specified for the substance or substances used.

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

**1555.0820 NAME.**

The name specified for each food for which a definition and standard of identity is prescribed by parts 1555.0800 to 1555.0830 is the common name of the kind of milled rice to which the enriching substances are added, preceded by the word "enriched" as, for example, "enriched rice" or "enriched parboiled rice."

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

**1555.0830 METHOD.**

The method referred to in part 1555.0815 is as follows:

A. Mix the contents of one or more containers and transfer one-half pound thereof to a four liter flask containing two liters of distilled water at room temperature, but not below 20 degrees Celsius.

B. Stopper the flask and swirl it moderately for one-half minute so that the rice is in motion and in uniform suspension.

C. Allow the rice to settle for one-half minute, then pour off 1,600 milliliters of the water together with any floating and suspended matter and discard.

D. To the contents of the flask, add 1,600 milliliters of distilled water and 20 milliliters of 10 N hydrochloric acid. Agitate vigorously and wash down the sides of the flask with 150 milliliters of 0.1 N hydrochloric acid.

E. In order to avoid excess foaming during the extraction, heat the mixture slowly to about 100 degrees Celsius, agitate gently if necessary and maintain at this temperature until air is expelled.

F. Again wash down the sides of the flask with 150 milliliters of 0.1 N hydrochloric acid.

G. Heat the mixture in an autoclave at 120 degrees Celsius to 123 degrees Celsius for 30 minutes, remove and cool to room temperature.

H. Dilute the mixture with distilled water so that the total volume is 2,500 milliliters. Swirl the flask and while the solids are in uniform suspension pour off about 250 milliliters of the mixture for later determination of iron and calcium, if this is to be determined.

I. With filter paper that has been shown not to absorb thiamine, riboflavin, or niacin, filter enough of the remaining mixture for determination of thiamine, riboflavin, and niacin. (In the case of a mixture difficult to filter, centrifuging or filtering through fritted glass or both, using a suitable analytical filter-aid, may be substituted for or may precede filtering through paper.)

J. Dilute an aliquot of filtrate with 0.1 N hydrochloric acid, so that each milliliter contains about 0.2 microgram of thiamine and determine thiamine by the method entitled

“Rapid Fluorometric Method – Official,” beginning with section 38.32 of the book “Official Methods of Analysis of the Association of Official Agricultural Chemists,” eighth edition, 1955.

K. With a suitable aliquot determine riboflavin by the method entitled “Fluorometric Method — Official” in the same book, beginning with the third sentence of the second paragraph in section 38.35(a), “Adjust, with vigorous agitation.....”

L. Determine niacin in a 200 milliliter aliquot of the filtrate by the method entitled “Chemical Method — Official” in the same book, beginning in the second sentence of the first paragraph in section 38.47(a), “adjust to pH 4.5 with .....”

M. Evaporate to dryness a 100–milliliter aliquot of the nonfiltered material withdrawn while agitating and if required, determine iron using the method on page 208 of the same book entitled “Iron — Official” and if required, determine calcium as directed, on page 209 of the same book, entitled “Calcium — Official.”

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

### ALIMENTARY PASTES

#### 1555.0840 MACARONI PRODUCTS.

“Macaroni products” are the class of foods each of which is prepared by drying formed units of dough made from semolina, durum flour, farina, flour, or any combination of two or more of these, with water and with or without one or more of the optional ingredients specified in items A to E:

A. egg white, frozen egg white, dried egg white, or any two or all of these in such quantity that the solids thereof is not less than 0.5 percent and not more than 2.0 percent of the weight of the finished food;

B. disodium phosphate, in a quantity not less than 0.5 percent and not more than 1.0 percent of the weight of the finished food;

C. onions, celery, garlic, bay leaf, or any two or more of these in a quantity which seasons the food;

D. salt, in a quantity which seasons the food; the finished macaroni product contains not less than 87 percent of total solids as determined by the method prescribed in “Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists,” fifth edition, 1940, page 235, under “Vacuum Oven Method — Official”;

E. gum gluten, in such quantity that the protein content of the finished food is not more than 13 percent by weight.

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

#### 1555.0850 MACARONI.

“Macaroni” is the product the units of which are tube-shaped and more than 0.11 inch but not more than 0.27 inch in diameter.

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

#### 1555.0860 SPAGHETTI.

“Spaghetti” is the macaroni product the units of which are tube-shaped or cord-shaped (not tubular) and more than 0.06 inch but not more than 0.11 inch in diameter.

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

#### 1555.0870 VERMICELLI.

“Vermicelli” is the macaroni product the units of which are cord shaped (not tubular) and not more than 0.06 inch in diameter.

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

#### 1555.0880 NAME.

The name of each food for which a definition and standard of identity is prescribed by this rule is “macaroni product”; or alternately, the name is “macaroni,” “spaghetti,” or “vermicelli,” as the case may be, when the units of the food are of the shapes and sizes specified in parts 1555.0850, 1555.0860, and 1555.0870, respectively.

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

**1555.0885 LABELING.**

Subpart 1. **Disodium phosphate.** When disodium phosphate is used the label shall bear the statement "disodium phosphate added for quick cooking."

Subp. 2. **Seasoning.** When any ingredient specified in part 1555.0840, item C is used, the label shall bear the statement "seasoned with \_\_\_\_\_," the blank being filled in with the common name of the ingredient; or in the case of bay leaves the statement "spiced," "spice added," or "spiced with bay leaves."

Subp. 3. **Placement of ingredient names.** Wherever the name of the food appears on such label so conspicuously as to be easily seen under customary conditions of purchase, the words and statements herein prescribed showing the optional ingredients used shall immediately and conspicuously precede or follow or in part precede and in part follow such name without intervening written, printed, or other graphic matter.

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

**1555.0890 MILK MACARONI PRODUCTS.**

"Milk macaroni products" are the class of foods each of which conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for macaroni products by parts 1555.0840 and 1555.0885, subparts 2 and 3, except that:

A. milk is used as the sole moistening ingredient in preparing the dough; or in lieu of milk one or more of the milk ingredients specified in part 1555.0885 is used, with or without water, in such quantity that the weight of milk solids therein is not less than 3.8 percent of the weight of the finished milk macaroni products; and

B. none of the optional ingredients permitted by part 1555.0840, items A and B is used. When the optional ingredient gum gluten part 1555.0840, item E is added, the quantity is such that the protein derived therefrom, together with the protein derived from semolina, durum flour, farina, flour, or any combination of these used, does not exceed 13 percent of the weight of the finished food.

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

**1555.0900 MILK MACARONI.**

"Milk macaroni" is the milk macaroni product the units of which conform to the specifications of shape and size prescribed for macaroni by part 1555.0850.

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

**1555.0910 MILK SPAGHETTI.**

"Milk spaghetti" is the milk macaroni product the units of which conform to the specifications of shape and size prescribed for spaghetti by part 1555.0860.

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

**1555.0920 MILK VERMICELLI.**

"Milk vermicelli" is the milk macaroni product the units of which conform to the specifications of shape and size prescribed for vermicelli by part 1555.0870.

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

**1555.0930 NAME.**

The name of each food for which a definition and standard of identity are prescribed by this part is "milk macaroni product"; or alternately, the name is "milk macaroni," "milk spaghetti," or "milk vermicelli," as the case may be, when the units of the food comply with the requirements of part 1555.0900, 1555.0910, or 1555.0920, respectively.

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

**1555.0940 MILK INGREDIENTS.**

The milk ingredients referred to in part 1555.0890, item A are concentrated milk, evaporated milk, dried milk, and a mixture of butter with skim milk, concentrated skim milk, evaporated skim milk, defatted milk solids (dried skim milk), or any two or more of these, in such proportion that the weight of nonfat milk solids in such mixture is not more than 2.275 times the weight of milk fat therein.

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

**1555.0950 WHOLE WHEAT MACARONI PRODUCTS.**

“Whole wheat macaroni products” are the class of foods each of which conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for macaroni products by parts 1555.0840 and 1555.0885, subparts 2 and 3, except that: whole wheat flour or whole durum wheat flour or both are used as the sole wheat ingredient; and none of the optional ingredients permitted by part 1555.0840, items A, B, and E is used.

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

**1555.0960 WHOLE WHEAT MACARONI.**

“Whole wheat macaroni” is the whole wheat macaroni product the units of which conform to the specifications of shape and size prescribed for macaroni by part 1555.0850.

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

**1555.0970 WHOLE WHEAT SPAGHETTI.**

“Whole wheat spaghetti” is the whole wheat macaroni product the units of which conform to the specifications of shape and size prescribed for spaghetti by part 1555.0860.

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

**1555.0980 WHOLE WHEAT VERMICELLI.**

“Whole wheat vermicelli” is the whole wheat macaroni product the units of which conform to the specifications of shape and size prescribed for vermicelli by 1555.0870.

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

**1555.0990 NAME.**

The name of each food for which a definition and standard of identity are prescribed by parts 1555.0950 to 1555.0990 is “whole wheat, macaroni product”; or alternately, the name is “whole wheat macaroni,” “whole wheat spaghetti,” or “whole wheat vermicelli,” as the case may be, when the units of the food comply with the requirements of part 1555.0960, 1555.0970, or 1555.0980, respectively.

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

**1555.1000 WHEAT AND SOY MACARONI PRODUCTS.**

“Wheat and soy macaroni products” are the class of foods each of which conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for macaroni products by parts 1555.0840 and 1555.0885, subparts 2 and 3, except that:

A. Soy flour is added in a quantity not less than 12.5 percent of the combined weight of the wheat and soy ingredients used (the soy flour used is made from heat processed, dehulled soybeans, with or without the removal of fat therefrom); and

B. None of the optional ingredients permitted by part 1555.0840, items A and B are used. When the optional ingredient gum gluten (part 1555.0840, item E) is added, the quantity is such that the protein derived therefrom, together with the protein derived from semolina, durum flour, farina, flour, or any combination of these used, does not exceed 13 percent of the weight of the finished food.

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

**1555.1010 WHEAT AND SOY MACARONI.**

“Wheat and soy macaroni” is the wheat and soy macaroni product the units of which conform to the specifications of shape and size prescribed for macaroni by part 1555.0850.

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

**1555.1020 WHEAT AND SOY SPAGHETTI.**

“Wheat and soy spaghetti” is the wheat and soy macaroni product the units of which conform to the specifications of shape and size prescribed for spaghetti by part 1555.0860.

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



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**1555.1030 WHEAT AND SOY VERMICELLI.**

"Wheat and soy vermicelli" is the wheat and soy macaroni product the units of which conform to the specifications of shape and size prescribed for vermicelli by part 1555.0870.

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

**1555.1040 NAME.**

The name of each food for which a definition and standard of identity are prescribed by parts 1555.1000 to 1555.1040 is "wheat and soy macaroni product," "wheat and soybean macaroni product," "\_\_\_\_\_ and soy macaroni product," or "\_\_\_\_\_ and soybean macaroni product," the blank in each instance being filled in with the name whereby the wheat ingredient used is designated in part 1555.0840; or alternately, the name is "wheat and soy macaroni," "wheat and soybean macaroni," "\_\_\_\_\_ and soy macaroni," or "\_\_\_\_\_ and soybean macaroni" when the units of the food comply with the requirements of part 1555.1010; or "wheat and soy spaghetti," "wheat and soybean spaghetti," "\_\_\_\_\_ and soy spaghetti," or "\_\_\_\_\_ and soybean spaghetti," when such units comply with the requirements of part 1555.1020; or "wheat and soy vermicelli," "wheat and soybean vermicelli," "\_\_\_\_\_ and soy vermicelli," or "\_\_\_\_\_ and soybean vermicelli," when such units comply with the requirements of part 1555.1030, the blank in each instance being filled in with the name whereby the wheat ingredient used is designated in part 1555.0840.

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

**1555.1050 VEGETABLE MACARONI PRODUCTS.**

"Vegetable macaroni products" are the class of foods each of which conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for macaroni products by parts 1555.0840 and 1555.0885, subparts 2 and 3, except that: tomato of any red variety, artichoke, beet, carrot, parsley, or spinach is added in such quantity that the solids thereof is not less than three percent by weight of the finished vegetable macaroni product (the vegetable used may be fresh, canned, dried, or in the form of puree or paste); and none of the optional ingredients permitted by part 1555.0840, items A and B is used. When the optional ingredient gum gluten (part 1555.0840, item E) is added, the quantity is such that the protein derived therefrom, together with the protein derived from the semolina, durum flour, farina, flour, or any combination of these used, does not exceed 13 percent of the weight of the finished food.

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

**1555.1060 VEGETABLE MACARONI.**

"Vegetable macaroni" is the vegetable macaroni product the units of which conform to the specifications of shape and size prescribed for macaroni by part 1555.0850.

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

**1555.1070 VEGETABLE SPAGHETTI.**

"Vegetable spaghetti" is the vegetable macaroni product the units of which conform to the specifications of shape and size prescribed for spaghetti by part 1555.0860.

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

**1555.1080 VEGETABLE VERMICELLI.**

"Vegetable vermicelli" is the vegetable macaroni product the units of which conform to the specifications of shape and size prescribed for vermicelli by part 1555.0870.

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

**1555.1090 NAME.**

The name of each food for which a definition and standard of identity is prescribed by parts 1555.1050 to 1555.1090 is "\_\_\_\_\_ macaroni product," the blank being filled in with the name whereby the vegetable used is designated in part 1555.1050; or alternately, the name is "\_\_\_\_\_ macaroni," "\_\_\_\_\_ spaghetti," or "\_\_\_\_\_ vermicelli," as the case may be, when the units of the food comply with the requirements of part 1555.1060,

1555.1070, or 1555.1080, respectively, the blank in each instance being filled in with the name whereby the vegetable used is designated in part 1555.1050.

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

#### **1555.1100 NOODLE PRODUCTS.**

"Noodle products" are the class of foods each of which is prepared by drying formed units of dough made from semolina, durum flour, farina, flour, or any combination of two or more of these, with liquid eggs, frozen eggs, dried eggs, egg yolks, frozen yolks, dried yolks, or any combination of two or more of these, with or without water and with or without one or more of the optional ingredients specified in items A to C:

A. onions, celery, garlic, bay leaf, or any two or more of these, in a quantity which seasons the food;

B. salt, in a quantity which seasons the food;

C. gum gluten, in such quantity that the protein derived therefrom, together with the protein derived from semolina, durum flour, farina, flour, or any combination of these used, does not exceed 13 percent of the weight of the finished food. The finished noodle product contains not less than 87 percent of total solids as determined by the method prescribed in "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," fifth edition, 1940, page 235, under "Vacuum Oven Method — Official." The total solids of noodle products contains not less than 5.5 percent by weight of the solids of egg or egg yolk.

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

#### **1555.1110 NOODLES, EGG NOODLES.**

"Noodles," "egg noodles" are the noodle product the units of which are ribbon-shaped.

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

#### **1555.1120 EGG MACARONI.**

"Egg macaroni" is the noodle product the units of which are tube shaped and more than 0.11 inch but not more than 0.27 inch in diameter.

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

#### **1555.1130 EGG SPAGHETTI**

"Egg spaghetti" is the noodle product the units of which are tube shaped or cord shaped (not tubular) and more than 0.06 inch but not more than 0.11 inch in diameter.

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

#### **1555.1140 EGG VERMICELLI.**

"Egg vermicelli" is the noodle product the units of which are cord-shaped (not tubular) and not more than 0.06 inch in diameter.

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

#### **1555.1150 NAME.**

The name of each food for which a definition and standard of identity is prescribed by parts 1555.1100 to 1555.1160 is "noodle product" or "egg noodle product"; or alternately, the name is "noodles" or "egg noodles," "egg macaroni," "egg spaghetti," or "egg vermicelli," as the case may be, when the units of the food are of the shapes and sizes specified in part 1555.1110, 1555.1120, 1555.1130, or 1555.1140, respectively.

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

#### **1555.1160 LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

When any ingredient specified in part 1555.1100, item A is used the label of the noodle product shall bear the statement "seasoned with \_\_\_\_\_," the blank being filled in with the common name of the ingredient, or in the case of bay leaves the statement "spiced," "spice added," or "spiced with bay leaves." Whenever the name of the food appears on such label so conspicuously as to be easily seen under customary conditions of purchase, the words and statements herein prescribed showing the ingredients used shall immediately and

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conspicuously precede or follow or in part precede and in part follow, such name without intervening written, printed, or other graphic matter.

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

## 1555.1170 WHEAT AND SOY NOODLE PRODUCTS.

“Wheat and soy noodle products” are the class of food each of which conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for noodle products by parts 1555.1100 and 1555.1160, except that soy flour is added in a quantity not less than 12.5 percent of the combined weight of the wheat and soy ingredients used (the soy flour used is made from heat processed, dehulled soybeans, with or without the removal of fat therefrom).

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

## 1555.1175 WHEAT AND SOY NOODLES, WHEAT AND SOY EGG NOODLES.

“Wheat and soy noodles,” “wheat and soy egg noodles” are the wheat and soy noodle product the units of which are ribbon-shaped.

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

## 1555.1180 WHEAT AND SOY EGG MACARONI.

“Wheat and soy egg macaroni” is the wheat and soy noodle product the units of which conform to the specifications of shape and size prescribed for egg macaroni by part 1555.1120.

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

## 1555.1190 WHEAT AND SOY EGG SPAGHETTI.

“Wheat and soy egg spaghetti” is the wheat and soy noodle product the units of which conform to the specifications of shape and size prescribed for egg spaghetti by part 1555.1130.

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

## 1555.1200 WHEAT AND SOY EGG VERMICELLI.

“Wheat and soy egg vermicelli” is the wheat and soy noodle product the units of which conform to the specifications of shape and size prescribed for egg vermicelli by part 1555.1140.

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

## 1555.1210 NAME.

The name of each food for which a definition and standard of identity is prescribed by parts 1555.1170 to 1555.1210 is “wheat and soy noodle product,” “wheat and soy egg noodle product,” “wheat and soybean noodle product,” “wheat and soybean egg noodle product,” “\_\_\_\_\_ and soy noodle product,” “\_\_\_\_\_ and soy egg noodle product,” “\_\_\_\_\_ and soybean noodle product,” or “\_\_\_\_\_ and soybean egg noodle product,” the blank in each instance being filled in with the name whereby the wheat ingredient used is designated in part 1555.1100; or alternately, the name is “wheat and soy noodles,” “wheat and soy egg noodles,” “wheat and soybean noodles,” “wheat and soybean egg noodles,” “\_\_\_\_\_ and soy noodles,” “\_\_\_\_\_ and soy egg noodles,” “\_\_\_\_\_ and soybean noodles,” or “\_\_\_\_\_ and soybean egg noodles” when the units of the food comply with the requirements of part 1555.1175; or “wheat and soy egg macaroni,” “wheat and soybean egg macaroni,” “\_\_\_\_\_ and soy egg macaroni,” or “\_\_\_\_\_ and soybean egg macaroni” when such units comply with the requirements of part 1555.1180; or “wheat and soy egg spaghetti,” “wheat and soybean egg spaghetti,” “\_\_\_\_\_ and soy egg spaghetti,” or “\_\_\_\_\_ and soybean egg spaghetti,” when such units comply with the requirements of part 1555.1190; or “wheat and soy egg vermicelli,” “wheat and soybean egg vermicelli,” “\_\_\_\_\_ and soy egg vermicelli,” or “\_\_\_\_\_ and soybean egg vermicelli,” when such units comply with the requirements of part 1555.1200, the blank in each instance being filled in with the name whereby the wheat ingredient used is designated in part 1555.1100.

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

**1555.1220 VEGETABLE NOODLE PRODUCTS.**

“Vegetable noodle products” are the class of food each of which conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for noodle products by parts 1555.1100 and 1555.1160, except that tomato, of any red variety, artichoke, beet, carrot, parsley, or spinach is added in such quantity that the solids thereof are not less than three percent by weight of the finished vegetable noodle product (the vegetable used may be fresh, canned, dried, or in the form of puree or paste).

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

**1555.1230 VEGETABLE NOODLES, VEGETABLE EGG NOODLES.**

“Vegetable noodles,” “vegetable egg noodles” are the vegetable noodle product the units of which are ribbon-shaped.

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

**1555.1240 VEGETABLE EGG MACARONI.**

“Vegetable egg macaroni” is the vegetable noodle product the units of which conform to the specifications of shape and size prescribed for egg macaroni by part 1555.1120.

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

**1555.1250 VEGETABLE EGG SPAGHETTI.**

“Vegetable egg spaghetti” is the vegetable noodle product the units of which conform to the specifications of shape and size prescribed for egg spaghetti by part 1555.1130.

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

**1555.1260 VEGETABLE EGG VERMICELLI.**

“Vegetable egg vermicelli” is the vegetable noodle product the units of which conform to the specifications of shape and size prescribed for egg vermicelli by part 1555.1140.

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

**1555.1270 NAME.**

The name of each food for which a definition and standard of identity are prescribed by parts 1555.1220 to 1555.1270 are “\_\_\_\_\_ noodle product” or “\_\_\_\_\_ egg noodle product,” the blank being filled in with the name whereby the vegetable used is designated in part 1555.1220; or alternately, the name is “\_\_\_\_\_ noodles” or “\_\_\_\_\_ egg noodles.” “\_\_\_\_\_ egg macaroni,” “\_\_\_\_\_ egg spaghetti,” or “\_\_\_\_\_ egg vermicelli,” as the case may be, when the units of the food comply with the requirements of part 1555.1230, 1555.1240, 1555.1250, or 1555.1260 respectively, the blank in each instance being filled in with the name whereby the vegetable is designated in part 1555.1220.

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

**1555.1280 ENRICHED MACARONI PRODUCTS.**

Enriched macaroni products are the class of food each of which conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for macaroni products by parts 1555.0840 and 1555.0885, except that:

A. Each such food contains in each pound not less than four milligrams and not more than five milligrams of thiamine, not less than 1.7 milligrams and not more than 2.2 milligrams of riboflavin, not less than 27 milligrams and not more than 34 milligrams of niacin or niacinamide, and not less than 13 milligrams and not more than 16.5 milligrams of iron (Fe).

B. Each such food may also contain as an optional ingredient added vitamin D in such quantity that each pound of the finished food contains not less than 250 U.S.P. units and not more than 1,000 U.S.P. units of vitamin D.

C. Each such food may also contain as an optional ingredient added calcium in such quantity that each pound of the finished food contains not less than 500 milligrams and not more than 625 milligrams of calcium (Ca).

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D. Each such food may also contain as an optional ingredient partly defatted wheat germ but the amount thereof does not exceed five percent of the weight of the finished food.

E. Each such food may be supplied, wholly or in part, with the prescribed quantity of any substance referred to in items A to C through the use of dried yeast, partly defatted wheat germ, enriched farina, or enriched flour, or through the direct additions of any of the substances prescribed in items A to C. Iron and calcium may be added only in forms which are harmless and assimilable. The substances referred to in items A and B may be added in a harmless carrier which does not impair the enriched macaroni product, such carrier being used only in the quantity reasonably necessary to effect an intimate and uniform distribution of such substances in the finished enriched macaroni product.

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

**1555.1290 ENRICHED MACARONI**

"Enriched macaroni" is the enriched macaroni product the units of which conform to the specifications of shape and size prescribed for macaroni by part 1555.0850.

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

**1555.1300 ENRICHED SPAGHETTI.**

"Enriched spaghetti" is the enriched macaroni product the units of which conform to the specifications of shape and size prescribed for spaghetti by part 1555.0860.

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

**1555.1310 ENRICHED VERMICELLI.**

"Enriched vermicelli" is the enriched macaroni product the units of which conform to the specifications of shape and size prescribed for vermicelli by part 1555.0870.

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

**1555.1320 NAME.**

The name of each food for which a definition and standard of identity is prescribed by parts 1555.1280 to 1555.1320 is "enriched macaroni product"; or alternately, the name is "enriched macaroni," "enriched spaghetti," or "enriched vermicelli," as the case may be, when the units of the food comply with the requirements of part 1555.1290, 1555.1300, or 1555.1310 respectively.

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

**1555.1330 ENRICHED NOODLE PRODUCTS.**

"Enriched noodle products" are the class of foods each of which conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients prescribed for noodle products by parts 1555.1100 and 1555.1160, except that:

A. Each such food contains in each pound not less than four milligrams and not more than five milligrams of thiamine, not less than 1.7 milligrams and not more than 2.2 milligrams of riboflavin, not less than 27 milligrams and not more than 34 milligrams of niacin or niacinamide and not less than 13 milligrams and not more than 16.5 milligrams of iron (Fe).

B. Each such food may also contain as an optional ingredient added vitamin D in such quantity that each pound of the finished food contains not less than 250 U.S.P. units and not more than 1,000 U.S.P. units of vitamin D.

C. Each such food may also contain as an optional ingredient added calcium in such quantity that each pound of the finished food contains not less than 500 milligrams and not more than 625 milligrams of calcium (Ca).

D. Each such food may also contain as an optional ingredient partly defatted wheat germ but the amount thereof does not exceed five percent of the weight of the finished food.

E. Each such food may be supplied, wholly or in part, with the prescribed quantity of any substance referred to in items A to C, through the use of dried yeast, partly defatted wheat germ, enriched farina, or enriched flour, or through the direct additions of any of the substances prescribed in items A to C. Iron and calcium may be added only in forms which

are harmless and assimilable. The substances referred to in items A and B may be added in a harmless carrier which does not impair the enriched noodle product, such carrier being used only in the quantity reasonably necessary to effect an intimate and uniform distribution of such substances in the finished enriched noodle product.

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

#### **1555.1340 ENRICHED NOODLES, ENRICHED EGG NOODLES.**

“Enriched noodles,” “enriched egg noodles” are the enriched noodle products the units of which conform to the specifications of shape and size prescribed for noodles in part 1555.1110.

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

#### **1555.1350 ENRICHED EGG MACARONI.**

“Enriched egg macaroni” is the enriched noodle product the units of which conform to the specifications of shape and size prescribed for egg macaroni in part 1555.1120.

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

#### **1555.1360 ENRICHED EGG SPAGHETTI.**

“Enriched egg spaghetti” is the enriched noodle product the units of which conform to the specifications of shape and size prescribed for egg spaghetti in part 1555.1130.

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

#### **1555.1370 ENRICHED EGG VERMICELLI.**

“Enriched egg vermicelli” is the enriched noodle product the units of which conform to the specifications of shape and size prescribed for egg vermicelli in part 1555.1140.

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

#### **1555.1380 NAME.**

The name of each food for which a definition and standard of identity is prescribed by parts 1555.1330 to 1555.1380 is “enriched noodle product” or “enriched egg noodle product”; or alternately, the name is “enriched noodles” or “enriched egg noodles,” “enriched egg macaroni,” “enriched egg spaghetti,” or “enriched egg vermicelli,” as the case may be, when the units of the food comply with the requirements of part 1555.1340, 1555.1350, 1555.1360, or 1555.1370 respectively.

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

### **BAKERY PRODUCTS**

#### **1555.1390 BREAD, WHITE BREAD AND ROLLS, WHITE ROLLS OR BUNS, WHITE BUNS.**

Each of the foods bread, white bread, rolls, white rolls, buns, white buns is prepared by baking a kneaded yeast-leavened dough, made by moistening flour with water or with one or more of the optional liquid ingredients specified in parts 1555.1390 to 1555.1430 or with any mixture of water and one or more of such ingredients. The term “flour,” unqualified, as used in parts 1555.1390 to 1555.1440, includes flour, bromated flour, and phosphated flour. The potassium bromate in any bromated flour used and the monocalcium phosphate in any phosphated flour used shall be deemed to be optional ingredients in the bread or rolls. Each of such foods is seasoned with salt, and in its preparation one or more of the optional ingredients specified in parts 1555.1390, 1555.1400 and the optional gluten ingredient specified in part 1555.1430 may be used.

**Statutory Authority:** *MS s 31.10; 31.77*

#### **1555.1400 OPTIONAL INGREDIENTS.**

Subpart 1. **Shortening.** In the foods referred to in part 1555.1390, shortening may be used in which or in conjunction with which may be used one or any combination of two or more of the following:

A. lecithin, hydroxylated lecithin complying with the provisions of Code of Federal Regulations, title 21, section 121.1027 (either of which may include related phosphatides derived from the corn oil or soybean oil from which such ingredients were obtained);

B. mono- and diglycerides of fat-forming fatty acids, diacetyl tartaric acid esters of mono- and diglycerides of fat-forming fatty acids, propylene glycol mono- and diesters of fat-forming fatty acids complying with the provisions of Code of Federal Regulations, title 21, section 121.1113 or a combination of two or more of these.

The total weight of these ingredients used does not exceed 20 percent by weight of the combination of such ingredients and the shortening, and the total amount of monoglyceride, diacetyl tartaric acid ester of monoglyceride, and propylene glycol monester does not exceed eight percent by weight of the combination; but if purified or concentrated monoglyceride alone is used, the amount does not exceed ten percent by weight of the combination.

**Subp. 2. Milk.** In the foods referred to in part 1555.1390, the following may be used: milk, concentrated milk, evaporated milk, sweetened condensed milk, dried milk, skim milk, concentrated skim milk, evaporated skim milk, sweetened condensed partly skimmed milk, sweetened condensed skim milk, nonfat dry milk, or any combination of two or more of these; except that any such ingredient or combination, together with any butter and cream used, is so limited in quantity or composition as not to meet the requirements for milk or dairy ingredients prescribed for milk bread by parts 1555.1480 to 1555.1500. Whenever milk solids not fat in any of the forms referred to in this subpart are used, carrageenan or salts of carrageenan conforming to the requirements of Code of Federal Regulations, title 21, sections 121.1066 and 121.1067 may be used, in a quantity not in excess of 0.8 percent by weight of such milk solids not fat.

**Subp. 3. Buttermilk.** In the foods referred to in part 1555.1390, the following may be used: buttermilk, concentrated buttermilk, dried buttermilk, sweet cream buttermilk, concentrated sweet cream buttermilk, dried sweet cream buttermilk, cheese whey, concentrated cheese whey, dried cheese whey, milk proteins, or any combination of two or more of these.

**Subp. 4. Eggs.** In the foods referred to in part 1555.1390, the following may be used: liquid eggs, frozen eggs, dried eggs, egg yolks, frozen egg yolks, dried yolks, egg white, frozen egg white, dried egg white, or any combination of two or more of these.

**Subp. 5. Sugar.** In the foods referred to in part 1555.1390, the following may be used: sugar, invert sugar (in congealed or syrup form), light-colored brown sugar, refiner's syrup, dextrose, honey, corn syrup, glucose syrup, dried corn syrup, dried glucose syrup, nondiastatic malt syrup, nondiastatic dried malt syrup, molasses (except blackstrap molasses), or any combination of two or more of these.

**Subp. 6. Certain malt ingredients and certain harmless preparations of enzymes.** In the foods referred to in part 1555.1390, the following may be used: one or any combination of the following:

A. malt syrup, dried malt syrup, malted barley flour, malted wheat flour, each of which is diastatically active;

B. harmless preparations of enzymes obtained from *aspergillus oryzae* or bromelain preparations obtained from pineapple, either or both of which may be added in a suitable, harmless carrier but the quantity of any such carrier shall be no greater than reasonably necessary to effect a uniform mixture of the enzymes with the flour used.

**Subp. 7. Inactive dried yeast.** In the foods referred to in part 1555.1390, the following may be used: inactive dried yeast, singly or in combination, of *saccharomyces cerevisiae* or *candida utilis* (torula), complying with all the provisions of Code of Federal Regulations, title 21, section 121.1125; but the total quantity thereof is not more than two parts for each 100 parts by weight of flour used.

**Subp. 8. Lactic acid-producing bacteria.** In the foods referred to in part 1555.1390, the following may be used: harmless lactic acid-producing bacteria.

**Subp. 9. Certain flours and starches.** In the foods referred to in part 1555.1390, the following may be used: corn flour (including finely ground corn meal), potato flour, rice flour, wheat starch, cornstarch, milo starch, potato starch, sweet potato starch any of which may be wholly or in part dextrinized, dextrinized wheat flour, soy flour, or any combination of two or more of these; but the total quantity thereof is not more than three parts for each 100 parts by weight of flour used.

**Subp. 10. Ground dehulled soybeans.** In the foods referred to in part 1555.1390, the following may be used: ground dehulled soybeans, which may be heat-treated and from

which oil may be removed, but which retain enzymatic activity; but the quantity thereof is not more than 0.5 part for each 100 parts by weight of flour used.

Subp. 11. **Calcium and ammonium compounds.** In the foods referred to in part 1555.1390, the following may be used: calcium sulfate, calcium lactate, calcium carbonate, dicalcium phosphate, ammonium phosphates, ammonium sulfate, ammonium chloride, or any combination of two or more of these; but the total quantity of such ingredients is not more than 0.25 part for each 100 parts by weight of flour used.

Subp. 12. **Dough conditioners; bleaches.** In the foods referred to in part 1555.1390, the following may be used: potassium bromate, calcium bromate, potassium iodate, calcium iodate, calcium peroxide, or any combination of two or more of these; but the total quantity thereof (including the potassium bromate in any bromated flour used) is not more than 0.0075 part for each 100 parts by weight of flour used; azodicarbonamide, complying with the requirements of Code of Federal Regulations, title 21, section 121.1085, in a carrier consisting of starch as permitted by and complying with the limitations prescribed in subpart 9 to which tricalcium phosphate may be added as an anticaking agent; but the total quantity of azodicarbonamide, including any quantity in the flour used, is not more than 0.0045 part for each 100 parts by weight of flour used.

Subp. 13. **Sequestrants; preservatives; neutralizers; buffers.** In the foods referred to in part 1555.1390, the following may be used:

A. monocalcium phosphate, but the total quantity thereof, including the quantity in any phosphated flour used and any quantity added, is not more than 0.75 part by weight for each 100 parts by weight of flour used;

B. a vinegar, in a quantity equivalent in acid strength to not more than one pint of 100-grain distilled vinegar for each 100 pounds of flour used; or

C. calcium propionate, sodium propionate, or any mixture of these, but the total quantity thereof is not more than 0.32 part for each 100 parts by weight of flour used; or

D. sodium diacetate, but the quantity thereof is not more than 0.4 part for each 100 parts by weight of flour used; or

E. lactic acid, in such quantity that the pH of the finished bread is not less than 4.5.

Subp. 14. **Spice.** In the foods referred to in part 1555.1390, the following may be used: spice, with which may be included spice oil and spice extract.

Subp. 15. **Calcium stearyl-2-lactylate, lactic stearate, sodium stearyl fumarate, succinylated-monoglycerides.** In the foods referred to in part 1555.1390, the following may be used: calcium stearyl-2-lactylate, lactic stearate, sodium stearyl fumarate, succinylated-monoglycerides, alone or in combination, complying with the provisions of Code of Federal Regulations, title 21, sections 121.1047, 121.1048, 121.1183, and 121.1195 respectively; but the quantity of each is not more than 0.5 part for each 100 parts by weight of flour used.

Subp. 16. **L-cysteine.** In the foods referred to in part 1555.1390, the following may be used: L-Cysteine (which may be added in the form of the hydrochloride salt, including hydrates thereof), in a quantity not to exceed 0.009 part for each 100 parts by weight of flour used.

**Statutory Authority:** *MS s 31.10; 31.77*

#### 1555.1410 METHOD.

Each of such foods contains not less than 62 percent of total solids, as determined by the method prescribed in "Official Methods of Analysis of the Association of Official Agricultural Chemists," seventh edition, 1950, page 209, section 13.70, under "Total Solids in an Entire Loaf of Bread," (Ed. note, tenth edition, 1965, page 203, section 13.077) except that if the baked unit weighs one pound or more, one entire unit is used for the determination and if the baked unit weighs less than one pound, such number of entire units as weighs one pound or more is used for the determination.

**Statutory Authority:** *MS s 31.10; 31.77*



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**1555.1420 UNIT WEIGHTS.**

Bread, white bread is baked in units each of which weighs one-half pound, one pound, one and one-half pounds or any multiple of one pound. Rolls, white rolls and buns, white buns are baked in units each of which weighs less than one-half pound after cooling.

**Statutory Authority:** *MS s 31.10; 31.77*

**1555.1430 OPTIONAL GLUTEN INGREDIENT.**

The optional gluten ingredient referred to in part 1555.1390 is suitable wheat gluten in such quantity that for each 100 parts by weight of flour used the added gluten does not exceed two parts for dough used to make loaves and does not exceed four parts for dough used to make rolls or buns. For the purposes of parts 1555.1390 to 1555.1440 "suitable wheat gluten" means gluten which is not denatured as determined by the test prescribed in this part. It is made from wheat flour from which starch has been removed by washing with water until the gluten contains not less than 75 percent protein on a moisture-free basis. The flour used for preparing such gluten complies with the requirements of the definition and standard of identity for wheat flour in Code of Federal Regulations, title 21, section 15.1, except that the ash content may exceed the limit specified in the standard, but may not exceed 2.3 percent on a moisture-free basis. The ash content of the flour and the protein content of the gluten are determined by the methods prescribed in Code of Federal Regulations, title 21, section 15.1(c). To determine whether the wheat gluten is denatured, use a laboratory sigma mixer of one-pint capacity (Carl Heinrich Company, Boston, Massachusetts, or other mixer which will give equivalent results). With 100 milliliters of water at 25 degrees Celsius in the mixer, start it operating, and sprinkle in 30 grams of the gluten to be tested. Observe the suspension for a visual change of consistency, indicating that the gluten is beginning to agglomerate, and when this is noted, stop the mixer. If the pieces of agglomerated gluten can be combined into a single homogeneous mass of dough which shows definite elasticity and film-forming properties, the gluten is deemed not to be denatured. If the pieces cannot be so combined, put them back in the water and continue the mixing. If a dough with the properties specified in this subpart is not obtainable within a total mixing time of one hour, the gluten is deemed to be denatured.

**Statutory Authority:** *MS s 31.10; 31.77*

**1555.1440 OPTIONAL INGREDIENTS LABELING.**

When any optional ingredient permitted by part 1555.1400, subpart 13 is used, except a vinegar and except monocalcium phosphate, in a quantity less than 0.25 part for each 100 parts by weight of flour, the label shall bear the statement "\_\_\_\_\_ added to retard spoilage," the blank being filled in with the name by which the ingredient used is designated in that part. When an optional ingredient permitted by part 1555.1400, subpart 14 is used, the label shall bear the statement "spiced" or "spice added" or "with added spice"; but in lieu of the word "spice" in such statements, the common or usual name of the spice may be used. Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the words and statements specified in this part shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter.

**Statutory Authority:** *MS s 31.10; 31.77*

**1555.1450 ENRICHED BREAD AND ENRICHED ROLLS OR ENRICHED BUNS.**

Each of the foods enriched bread, enriched rolls, enriched buns conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for bread by parts 1555.1390, 1555.1400, 1555.1410, and 1555.1440, except that:

A. each such food contains in each pound not less than 1.1 milligrams and not more than 1.8 milligrams of thiamine, not less than 0.7 milligrams and not more than 1.6 milligrams of riboflavin, not less than 10.0 milligrams and not more than 15.0 milligrams of niacin or niacinamide and not less than 8.0 milligrams and not more than 12.5 milligrams of iron (Fe);

B. each such food may also contain as an optional ingredient added vitamin D in such quantity that each pound of the finished food contains not less than 150 United States

Pharmacopoeia units and not more than 750 United States Pharmacopoeia units of vitamin D;

C. each such food may also contain as an optional ingredient added harmless calcium salts in such quantity that each pound of the finished food contains not less than 300 milligrams and not more than 800 milligrams of calcium (Ca);

D. each such food may also contain as an optional ingredient wheat germ or partly defatted wheat germ; but the total quantity thereof, including any wheat germ or partly defatted wheat germ in any enriched flour used, is not more than five percent of the flour ingredient;

E. enriched flour may be used, in whole or in part, instead of flour;

F. the limitation prescribed by part 1555.1400, subpart 2 on the quantity and composition of milk and dairy ingredients does not apply. As used in parts 1555.1450 to 1555.1470, the term "flour," unqualified, includes bromated flour and phosphated flour; the term "enriched flour" includes enriched bromated flour. The prescribed quantity of any substance referred to in items A, B, and C may be supplied or partly supplied through the use of enriched flour; through the direct addition of such substance under the conditions permitted by Code of Federal Regulations, title 21, section 15.10 for supplying such substance in the preparation of enriched flour; through the use of any ingredient containing such substance, which ingredient is required or permitted by parts 1555.1390 and 1555.1400 within the limits, if any, prescribed by such part, as modified by this item; through the use of wheat germ; or through any two or more of such methods.

**Statutory Authority:** *MS s 31.10; 31.77*

#### **1555.1460 UNIT WEIGHTS.**

Enriched bread is baked in units each of which weighs one-half pound, one pound, 1-1/2 pound or any multiple of one pound. Enriched rolls or enriched buns are baked in units each of which weighs less than one-half pound after cooling.

**Statutory Authority:** *MS s 31.10; 31.77*

#### **1555.1470 OPTIONAL GLUTEN INGREDIENT.**

The optional gluten ingredient described in part 1555.1430 may be added in such quantity that for each 100 parts by weight of flour used the added gluten does not exceed two parts for dough used to make loaves and does not exceed four parts for dough used to make rolls or buns.

**Statutory Authority:** *MS s 31.10; 31.77*

#### **1555.1480 MILK BREAD AND MILK ROLLS OR MILK BUNS.**

Each of the foods milk bread, milk rolls, milk buns conforms to the definition and standard of identity, and is subject to the requirements for label statement of optional ingredients prescribed for bread and rolls or buns by parts 1555.1390, 1555.1400, 1555.1410, 1555.1430, and 1555.1440, except that:

A. milk is used as the sole moistening ingredient in preparing the dough or in lieu of milk one or more of the dairy ingredients prescribed in part 1555.1500 is used, with or without water, in a quantity containing not less than 8.2 parts by weight of milk solids for each 100 parts by weight of flour used, including any bromated flour or phosphated flour used; and

B. no ingredient permitted by part 1555.1400, subpart 3 is used.

**Statutory Authority:** *MS s 31.10; 31.77*

#### **1555.1490 UNIT WEIGHTS.**

Milk bread is baked in units each of which weighs one-half pound, one pound, 1-1/2 pound or any multiple of one pound. Milk rolls or milk buns are baked in units each of which weighs less than one-half pound after cooling.

**Statutory Authority:** *MS s 31.10; 31.77*

#### **1555.1500 DAIRY INGREDIENTS.**

The dairy ingredients referred to in part 1555.1480, item A are concentrated milk, evaporated milk, sweetened condensed milk, dried milk, and a mixture of butter or cream or both

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with skim milk, concentrated skim milk, evaporated skim milk, sweetened condensed skim milk, sweetened condensed partly skimmed milk, nonfat dry milk, or any two or more of these in such proportion that the weight of nonfat milk solids in such mixture is not more than 2.3 times and not less than 1.2 times the weight of the milk fat therein.

**Statutory Authority:** *MS s 31.10; 31.77*

**1555.1510 RAISIN BREAD AND RAISIN ROLLS OR RAISIN BUNS.**

Each of the foods raisin bread, raisin rolls, raisin buns conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients, prescribed for bread and rolls or buns by parts 1555.1390 to 1555.1410, and 1555.1440, except that:

- A. not less than 50 parts by weight of seeded or seedless raisins are used for each 100 parts by weight of flour used (including any bromated flour or phosphated flour used);
- B. water extract of raisins may be used, but not to replace raisins;
- C. the baked units may bear icing or frosting;
- D. the limitation prescribed by part 1555.1400, subpart 2 on the quantity and composition of dairy ingredients does not apply; and
- E. in determining its total solids, instead of following the direction "Grind sample just to pass 20-mesh sieve" (Official Methods of Analysis of the Association of Official Agricultural Chemists, seventh edition, 1950, page 209, section 13.70 (Ed. note, ninth edition, 1960, page 170, section 13.077), under "Total Solids in an Entire Loaf of Bread") comminute the sample by passing it twice through a food chopper.

**Statutory Authority:** *MS s 31.10; 31.77*

**1555.1520 OPTIONAL GLUTEN INGREDIENT.**

The optional gluten ingredient described in part 1555.1430 may be added in such quantity that for each 100 parts by weight of flour used the added gluten does not exceed four parts for dough used to make loaves, rolls, or buns.

**Statutory Authority:** *MS s 31.10; 31.77*

**1555.1530 UNIT WEIGHTS.**

Raisin bread is baked in units each of which weighs one-half pound, one pound, 1-1/2 pound, or any multiple of one pound. Raisin rolls or raisin buns are baked in units each of which weighs less than one-half pound after cooling.

**Statutory Authority:** *MS s 31.10; 31.77*

**1555.1540 WHOLE WHEAT BREAD, GRAHAM BREAD, ENTIRE WHEAT BREAD AND WHOLE WHEAT ROLLS, GRAHAM ROLLS, ENTIRE WHEAT ROLLS OR WHOLE WHEAT BUNS, GRAHAM BUNS, ENTIRE WHEAT BUNS.**

Each of the foods whole wheat bread, graham bread, entire wheat bread, whole wheat rolls, graham rolls, entire wheat rolls, whole wheat buns, graham buns, entire wheat buns conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for bread, rolls, and buns by parts 1555.1390 to 1555.1410, and 1555.1440, except that:

- A. the dough is made from whole wheat flour and no flour or gluten ingredient as described in part 1555.1430 is used therein;
- B. the limitation prescribed by part 1555.1400, subpart 2 on the quantity and composition of dairy ingredients does not apply;
- C. the total weight of calcium propionate, sodium propionate, or mixtures of these used is not more than 0.38 part for each 100 parts by weight of the whole wheat flour used. As used in parts 1555.1540 and 1555.1550, the term "flour," unqualified, includes flour, enriched flour, bromated flour, enriched bromated flour, and phosphated flour; the term "whole wheat flour" includes whole wheat flour and bromated whole wheat flour. The potassium bromate in any bromated whole wheat flour used shall be deemed to be an optional ingredient in the whole wheat bread or whole wheat rolls.

**Statutory Authority:** *MS s 31.10; 31.77*

**1555.1550 UNIT WEIGHTS.**

Whole wheat bread, graham bread, or entire wheat bread is baked in units each of which weighs one-half pound, one pound, 1-1/2 pound, or any multiple of one pound. Whole wheat rolls, graham rolls, entire wheat rolls, or whole wheat buns, graham buns, entire wheat buns are baked in units each of which weighs less than one-half pound after cooling.

**Statutory Authority:** *MS s 31.10; 31.77*

**1555.1560 LABELING OF BAKERY PRODUCTS.**

Where a bakery product is not manufactured by the person whose name appears on the label, the name shall be qualified by a phrase which reveals the connection such person has with such bakery products, such as "manufactured for and packed by \_\_\_\_\_," "distributed by \_\_\_\_\_," or other similar phrase which expresses the facts. The statement of the place of business shall include the street address, if any, of such place, unless such street address is shown in a current city directory or telephone directory. If a person manufactures, packs, or distributes a bakery product at a place other than the person's principal place of business, the label may state the principal place of business in lieu of the actual place where each bakery product was manufactured or packed or is to be distributed, if such statement is not misleading in any particular.

**Statutory Authority:** *MS s 31.10; 31.77*

**History:** 17 SR 1279

**1555.1570 BREAD LABELING.**

Every loaf or twin loaf of bread sold within this state shall have affixed on the loaf or on the outside of the wrapper in a plain statement the weight of the loaf or twin loaf of bread, together with the name and address of the manufacturer or distributor.

**Statutory Authority:** *MS s 31.10; 31.77*

**1555.1580 ADDITIONAL LABELING REQUIREMENTS.**

When bakery products are sold in package form, the labeling requirements for foods sold in package form also apply.

**Statutory Authority:** *MS s 31.10; 31.77*

**1555.1590 UNIT WEIGHTS, BREAD, ROLLS, BUNS.**

All bread shall be baked in units each of which weighs one-half pound, one pound, 1-1/2 pound or any multiple of one pound. Rolls and buns shall be baked in units each of which weighs less than one-half pound after cooling.

**Statutory Authority:** *MS s 31.10; 31.77*

**1555.1600 NET WEIGHT.**

The weights specified in parts 1555.1420, 1555.1460, 1555.1490, 1555.1530, 1555.1550, and 1555.1590 shall be construed to mean net weights within a period of 24 hours after baking. A variation at the rate of one ounce per pound over or one ounce per pound under the specified weight of each individual loaf shall not be a violation of the said regulations; provided, that the total weight of 25 loaves of bread of a given variety shall in no case fall below 25 times the unit weight.

**Statutory Authority:** *MS s 31.10; 31.77*

**DRESSINGS FOR FOODS****1555.1610 MAYONNAISE, MAYONNAISE DRESSING.**

"Mayonnaise," "mayonnaise dressing" is the emulsified semisolid food prepared from edible vegetable oil, one or both of the acidifying ingredients specified in part 1555.1620, and one or more of the egg-yolk-containing ingredients specified in part 1555.1630. It may be seasoned or flavored with one or more of the following ingredients:

A. salt;

B. sugar, dextrose, corn syrup, invert sugar syrup, nondiastatic maltose syrup, glucose syrup, honey (the foregoing sweetening ingredients may be used in syrup or dried form);

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C. mustard, paprika, other spice, or any spice oil or spice extract, except that no turmeric or saffron is used and no spice oil or spice extract is used which imparts to the mayonnaise a color simulating the color imparted by egg yolk;

D. monosodium glutamate; and

E. any suitable, harmless food seasoning or flavoring other than imitations, provided it does not impart to the mayonnaise a color simulating the color imparted by egg yolk.

Mayonnaise may be mixed and packed in an atmosphere in which air is replaced in whole or in part by carbon dioxide or nitrogen. Mayonnaise contains not less than 65 percent by weight of vegetable oil.

**Statutory Authority:** *MS s 31.01; 31.101*

**1555.1620 ACIDIFYING INGREDIENTS.**

The acidifying ingredients referred to in part 1555.1610 are:

A. any vinegar or any vinegar diluted with water to an acidity, calculated as acetic acid, of not less than 2-1/2 percent by weight or any such vinegar or diluted vinegar mixed with the additional optional acidifying ingredient citric acid, but in any such mixture the weight of citric acid is not greater than 25 percent of the weight of the acids of the vinegar or diluted vinegar calculated as acetic acid. For the purpose of this part, any blend of two or more vinegars is considered to be a vinegar; and

B. lemon juice or lime juice or both or any such juice in frozen, canned, concentrated, or dried form or any one or more of these diluted with water to an acidity, calculated as citric acid, of not less than 2-1/2 percent by weight.

**Statutory Authority:** *MS s 31.01; 31.101*

**1555.1630 EGG-YOLK-CONTAINING INGREDIENTS.**

The egg-yolk-containing ingredients referred to in part 1555.1610 are: liquid egg yolks, frozen egg yolks, liquid whole eggs, frozen whole eggs, or any one or more of the foregoing with liquid egg white or frozen egg white.

**Statutory Authority:** *MS s 31.01; 31.101*

**1555.1640 OPTIONAL INGREDIENTS LABELING.**

When the additional optional acidifying ingredient as provided in part 1555.1620, item A is used, the label shall bear the statement "citric acid added" or "with added citric acid." Wherever the name "mayonnaise" or "mayonnaise dressing" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statements specified in parts 1555.1610 to 1555.1640, 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 31.01; 31.101*

**1555.1650 FRENCH DRESSING.**

"French dressing" is the separable liquid food or the emulsified viscous fluid food prepared from edible vegetable oil and one or both of the acidifying ingredients specified in part 1555.1660. It may be seasoned or flavored with one or more of the following ingredients: salt; sugar, dextrose, corn syrup, invert sugar syrup, nondiastatic maltose syrup, glucose syrup, honey (the foregoing sweetening ingredients may be used in syrup or dried form); mustard, paprika, other spice or spice oil or spice extract; monosodium glutamate; any suitable, harmless food seasoning or flavoring (other than imitations); tomato paste, tomato puree, catsup, sherry wine. French dressing may be emulsified. Subject to the conditions hereinafter prescribed, one or both of the optional emulsifying ingredients specified in part 1555.1670 may be added. French dressing may be mixed and packed in an atmosphere in which air is replaced in whole or in part by carbon dioxide or nitrogen. French dressing contains not less than 35 percent by weight of vegetable oil.

**Statutory Authority:** *MS s 31.01; 31.101*

**1555.1660 ACIDIFYING INGREDIENTS.**

The acidifying ingredients referred to in part 1555.1650 are:

A. Any vinegar or any vinegar diluted with water or any such vinegar or diluted vinegar mixed with the additional optional acidifying ingredient citric acid, but in any such mixture the weight of citric acid is not greater than 25 percent of the weight of the acids of the vinegar or diluted vinegar calculated as acetic acid. For the purpose of this part, any blend of two or more vinegars is considered to be a vinegar.

B. Lemon juice or lime juice or both or any such juice in frozen, canned, concentrated, or dried form or any one or more of these diluted with water.

**Statutory Authority:** *MS s 31.01; 31.101*

#### **1555.1670 OPTIONAL EMULSIFYING INGREDIENTS.**

The optional emulsifying ingredients referred to in part 1555.1650 are:

A. Gum acacia (also called gum arabic), carob bean gum (also called locust bean gum), guar gum, gum karaya, gum tragacanth, extract of Irish moss, pectin, propylene glycol ester of alginic acid, sodium carboxymethylcellulose or any mixture of two or more of these.

B. Liquid egg yolks, frozen egg yolks, liquid whole eggs, frozen whole eggs, or any one or more of these with liquid egg white or frozen egg white. For the purpose of this part, the quantity of egg-yolk-containing ingredient is calculated as the weight of the egg-yolk-solids contained therein. The quantity of any such emulsifying ingredient or mixture used amounts to not more than 0.75 percent by weight of the finished French dressing.

**Statutory Authority:** *MS s 31.01; 31.101*

#### **1555.1680 OPTIONAL INGREDIENTS LABELING.**

When the additional optional acidifying ingredient as provided in part 1555.1660, item A is used, the label shall bear the statement "citric acid added" or "with added citric acid." When an optional emulsifying ingredient as provided in part 1555.1670, item A 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 emulsifying ingredient or mixture of emulsifying ingredients used, as specified in part 1555.1670, item A; or, alternatively, with the words "algin derivative," if propylene glycol ester of alginic acid is used; or with the words "vegetable gum" if any one of the vegetable gums, gum acacia, carob bean gum, guar gum, gum karaya, or gum tragacanth, is used; or with the words "vegetable gums" if two or more such vegetable gums are used. Label statements specified in this part for declaring the presence of optional ingredients may be combined as for example, "with added citric acid and sodium carboxymethylcellulose." Wherever the name "French dressing" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statements specified in this part, 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 31.01; 31.101*

#### **1555.1690 SALAD DRESSING.**

"Salad dressing" is the emulsified semisolid food prepared from edible vegetable oil, one or both of the acidifying ingredients specified in part 1555.1700, one or more of the egg-yolk-containing ingredients specified in part 1555.1710, and a cooked or partly cooked starchy paste prepared with a food starch, tapioca flour, wheat flour, rye flour, or any two or more of these. In the preparation of such starchy paste, water may be added. Salad dressing may be seasoned or flavored with one or more of the following ingredients:

A. salt;

B. sugar, dextrose, corn syrup, invert sugar syrup, nondiastatic maltose syrup, glucose syrup, honey (the foregoing sweetening ingredients may be used in syrup or dried form);

C. mustard, paprika, other spice, or any spice oil or spice extract, except that no turmeric or saffron is used and no spice oil or spice extract is used which imparts to the salad dressing a color simulating the color imparted by egg yolk;

D. monosodium glutamate; and

E. any suitable, harmless food seasoning or flavoring other than imitations, provided it does not impart to the salad dressing a color simulating the color imparted by egg yolk.

Subject to the conditions prescribed, one or more of the optional emulsifying ingredients specified in part 1555.1720 may be added. Salad dressing may be mixed and packed in an atmosphere in which air is replaced in whole or in part by carbon dioxide or nitrogen. Salad dressing contains not less than 30 percent by weight of vegetable oil and not less egg-yolk-containing ingredient than is equivalent in egg-yolk-solids content to four percent by weight of liquid egg yolks.

**Statutory Authority:** *MS s 31.01; 31.101*

#### 1555.1700 ACIDIFYING INGREDIENTS.

The acidifying ingredients referred to in part 1555.1690 are:

A. Any vinegar or any vinegar diluted with water or any such vinegar or diluted vinegar mixed with the additional optional acidifying ingredient citric acid, but in any such mixture the weight of citric acid is not greater than 25 percent of the weight of the acids of the vinegar or diluted vinegar calculated as acetic acid. For the purpose of this part, any blend of two or more vinegars is considered to be a vinegar.

B. Lemon juice or lime juice or both or any such juice in frozen, canned, concentrated, or dried form or any one or more of these diluted with water.

**Statutory Authority:** *MS s 31.01; 31.101*

#### 1555.1710 EGG-YOLK-CONTAINING INGREDIENTS.

The egg-yolk-containing ingredients referred to in part 1555.1690 are: liquid egg yolks, frozen egg yolks, liquid whole eggs, frozen whole eggs, or any one or more of the foregoing with liquid egg white or frozen egg white.

**Statutory Authority:** *MS s 31.01; 31.101*

#### 1555.1720 OPTIONAL EMULSIFYING INGREDIENTS.

The optional emulsifying ingredients referred to in part 1555.1690 are: gum acacia (also called gum arabic), carob bean gum (also called locust bean gum), guar gum, gum karaya, gum tragacanth, extract of Irish moss, pectin, propylene glycol ester of alginic acid, sodium carboxymethylcellulose, or any mixture of two or more of these. The quantity used of any such emulsifying ingredient or mixture amounts to not more than 0.75 percent by weight of the finished salad dressing.

**Statutory Authority:** *MS s 31.01; 31.101*

#### 1555.1730 OPTIONAL INGREDIENTS LABELING.

When the additional optional acidifying ingredient as provided in part 1555.1700, item A is used, the label shall bear the statement "citric acid added" or "with added citric acid." When an optional emulsifying ingredient as provided in part 1555.1720 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 emulsifying ingredient or mixture of emulsifying ingredients used, as specified in part 1555.1720; or, alternatively, with the words "algin derivative," if propylene glycol ester of alginic acid is used; or with the words "vegetable gum" if any one of the vegetable gums, gum acacia, carob bean gum, guar gum, gum karaya, or gum tragacanth, is used; or with the words "vegetable gums," if two or more such vegetable gums are used. Label statements specified in this part for declaring the presence of optional ingredients may be combined, as for example, "with added citric acid and sodium carboxymethylcellulose." Wherever the name "salad dressing" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statements specified in this part 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 31.01; 31.101*

### FRUIT BUTTERS, FRUIT JELLIES, FRUIT PRESERVES, AND RELATED PRODUCTS

#### 1555.1740 FRUIT BUTTER.

The fruit butters for which definitions and standards of identity are prescribed by parts 1555.1740 to 1555.1810 are the smooth, semisolid foods each of which is made from a mix-

ture composed of not less than five parts by weight as determined by the method prescribed in part 1555.1750 of one or any combination of two, three, four, or five of the optional fruit ingredients specified in parts 1555.1770 and 1555.1780 to each two parts by weight (see part 1555.1800, item A) of one of the optional saccharine ingredients specified in part 1555.1790, except that the use of such saccharine ingredient is not required when the optional ingredient five is used. Such mixture may be seasoned with one or more of the following optional ingredients:

- A. spice;
- B. flavoring (other than artificial flavoring);
- C. salt;

D. a vinegar, lemon juice, lime juice, citric acid, lactic acid, malic acid, tartaric acid, or any combination of two or more of these. Such mixture may also contain the optional ingredient;

E. fruit juice or diluted fruit juice or concentrated fruit juice, in a quantity not less than one-half the weight of the optional fruit ingredient.

Such mixture is concentrated by heat to such point that the soluble-solids content of the finished fruit butter is not less than 43 percent, as determined by the method prescribed in "Official Methods of Analysis of the Association of Official Agricultural Chemists", seventh edition, page 322, under "Soluble Solids in Fresh and Canned Fruits, Jams, Marmalades and Preserves — First Action," except that no correction is made for water-insoluble solids.

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

#### **1555.1750 OPTIONAL FRUIT INGREDIENT WEIGHT DETERMINATION.**

Any requirement of parts 1555.1740 to 1555.1820 with respect to the weight of any optional fruit ingredient, whether concentrated, unconcentrated, or diluted, means the weight determined by the following method: determine the percent of soluble solids in the optional fruit ingredient by the method prescribed for determining soluble solids in part 1555.1740; multiply the percent so found by the weight of such ingredient; divide the result by 100; subtract from the quotient the weight of any added sugar or any other added solids; and multiply the remainder by the factor for such ingredient prescribed in parts 1555.1770 and 1555.1780. The result is the weight of the optional fruit ingredient.

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

#### **1555.1760 METHOD.**

For the purposes of parts 1555.1740 to 1555.1820, the weight of fruit juice or diluted fruit juice or concentrated fruit juice (optional ingredient in part 1555.1740, item E) from a fruit specified in parts 1555.1770 and 1555.1780 is the weight of such juice, as determined by the method prescribed in part 1555.1750, except that the percent of soluble solids is determined by the method prescribed in "Official Methods of Analysis of the Association of Official Agricultural Chemists," seventh edition, page 495, under "Solids by Means of Refractometer — Official"; the weight of diluted or concentrated juice from any other fruit is the original weight of the juice before it was diluted or concentrated.

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

#### **1555.1770 PREPARATION OF OPTIONAL FRUIT INGREDIENTS.**

Each of the optional fruit ingredients referred to in part 1555.1740 is prepared by cooking one of the fresh, frozen, canned, and/or dried (evaporated) mature fruits in parts 1555.1780 and 1555.1790, with or without added water, and screening out skins, seeds, pits, and cores.

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

#### **1555.1780 FACTOR.**

The factors referred to in part 1555.1750 are: apple, 7.5; apricot, 7.0; grape, 7.0; peach, 8.5; pear, 6.5; plum (other than prune), 7.0; prune, 7.0; and quince, 7.5.

In any combination of two, three, four, or five fruit ingredients, the weight of each is not less than one-fifth of the weight of the combination.

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



**1555.1790 OPTIONAL SACCHARINE INGREDIENTS.**

The optional saccharine ingredients referred to in part 1555.1740 are:

- A. sugar;
- B. invert sugar syrup;
- C. brown sugar;
- D. invert brown sugar syrup;
- E. honey;
- F. any combination of two or more of the ingredients in items A, B, C, and D;
- G. any combination of dextrose and the ingredient in item A, B, C, D, or F;
- H. any combination composed of corn syrup, dried corn syrup, glucose syrup, or any two or more of the foregoing, with the optional saccharine ingredient in item A, B, C, D, F, or G, in which the weight of the solids of corn syrup, dried corn syrup, glucose syrup, or the sum of the weight of the solids of corn syrup, dried corn syrup, and glucose syrup, in case two or more of these are used, does not exceed one-fourth of the total weight of the solids of the combined saccharine ingredients; and
- I. Any combination of honey and the optional saccharine ingredient in item A, B, C, D, F, or G, in which the weight of the solids of each component except honey is not less than one-tenth of the weight of the solids of such combination and the weight of honey solids is not less than two-fifths of the weight of the solids of such combination.

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

**1555.1800 DEFINITIONS.**

For the purpose of parts 1555.1740 to 1555.1820:

- A. The weight of any optional saccharine ingredient means the weight of the solids of such ingredient.
- B. The term "sugar" means refined sugar (sucrose).
- C. The term "invert sugar syrup" means a syrup made by inverting or partly inverting sugar or partly refined sugar; its ash content is not more than 0.3 percent of its solids content, but if it is made from partly refined sugar, color and flavor other than sweetness are removed.
- D. The term "invert brown sugar syrup" means a syrup made by inverting or partly inverting brown sugar.
- E. The term "corn syrup" means a clarified, concentrated aqueous solution of the products obtained by the incomplete hydrolysis of cornstarch. The solids of corn syrup contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose. The term "glucose syrup" means a syrup which conforms to the definition in this item for corn syrup, except that it is made from any edible starch.
- F. The term "dextrose" means refined anhydrous or hydrated dextrose made from any starch.

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

**1555.1805 FRUIT BUTTER NAMES.**

The name of each fruit butter for which a definition and standard of identity is prescribed by parts 1555.1740 to 1555.1810 is as follows: in case the fruit butter is made from a single fruit ingredient, the name is "butter," preceded by the name whereby such fruit is designated in part 1555.1780. In case the fruit butter is made from a combination of two, three, four, or five fruit ingredients, the name is "butter" preceded by the words "mixed fruit" or by the names whereby such fruits are designated in part 1555.1780, in the order of predominance, if any, of the weight of such fruit ingredients in the combination.

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

**1555.1810 OPTIONAL INGREDIENTS LABELING.**

Subpart 1. **Spice.** When the optional ingredient in part 1555.0740, item A is used, the label shall bear the word "spiced" or the statement "spice added" or "with added spice"; but in lieu of the word "spice" in such statements the common name of the spice may be used.

Subp. 2. **Flavoring.** When the optional ingredient in part 1555.0740, item B is used, the label shall bear the statement "flavoring added" or "with added flavoring." The word "flavoring" in such statements may be preceded by the common name of the kind of flavoring used.

Subp. 3. **Fruit juice or diluted or concentrated fruit juice.** When the optional ingredient in part 1555.0740, item E is used, the label shall bear the words "prepared with \_\_\_\_\_ juice," the blank to be filled in with the name of the fruit from which the juice is obtained; but if apple juice is used, the word "cider" may be used in lieu of "apple juice."

Subp. 4. **Honey.** When the optional saccharine ingredient in part 1555.1790, item E is used, the label shall bear the statement "prepared with honey."

Subp. 5. **Honey combination.** When the optional saccharine ingredient in part 1555.1790, item I is used, the label shall bear the names of the components of the combination whereby such components are designated in part 1555.1790, in the order of predominance, if any, of the weights of such components in the combination. Such name shall be preceded by the words "prepared with."

Subp. 6. **Dried fruit.** When an optional saccharine ingredient is prepared in whole or in part from dried fruit, the label shall bear the words "prepared from" or "prepared in part from," as the case may be, followed by the word "evaporated" or "dried," followed by the name whereby such fruit is designated in part 1555.1780. When two or more such optional fruit ingredients are used, such names, each preceded by the word "evaporated" or "dried," shall appear in the order of predominance, if any, of the weight of such ingredients in the combination.

Subp. 7. **Combination of optional fruit ingredients.** When a combination of two, three, four, or five optional fruit ingredients is used, and the fruit butter is designated on its label by the name "mixed fruit butter," the label shall bear the names whereby the fruits from which such ingredients are prepared are designated in part 1555.1780, in the order of predominance, if any, of the weights of such ingredients in the combination.

Subp. 8. **Combined label statements.** The label statements required by subparts 1 and 2 may be combined, as for example, "cinnamon oil and cloves added." The label statements required by two or more of subparts 3 to 7 may be combined, as for example, "prepared with cider, apples, dried prunes, and honey."

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

#### 1555.1820 PLACEMENT OF OPTIONAL INGREDIENTS STATEMENTS.

Whenever the names specified in part 1555.1805 appears on the label of the fruit butter so conspicuously as to be easily seen under customary conditions of purchase, the words and statements specified in this rule, showing the optional ingredients used, shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that the varietal name of the fruit used in preparing such fruit butter may so intervene.

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

#### 1555.1830 FRUIT JELLY.

The jellies for which definitions and standards of identity are prescribed by parts 1555.1830 to 1555.1910 are the jelled foods each of which is made from a mixture composed of not less than 45 parts by weight (as determined by the method prescribed in part 1555.1840) of one or any combination of two, three, four, or five of the fruit juice ingredients specified in part 1555.1850 to each 55 parts by weight (see part 1555.1880, subpart 2) of one of the optional saccharine ingredients specified in part 1555.1870. Such mixture may also contain one or more of the following optional ingredients:

A. spice;

B. a vinegar, lemon juice, lime juice, citric acid, lactic acid, malic acid, tartaric acid, or any combination of two or more of these, in a quantity which reasonably compensates for deficiency, if any, of the natural acidity of the fruit juice ingredient;

C. pectin, in a quantity which reasonably compensates for deficiency, if any, of the natural pectin content of the fruit juice ingredient;

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D. sodium citrate, sodium potassium tartrate, or any combination of these in a quantity the proportion of which is not more than three ounces avoirdupois to each 100 pounds of the saccharine ingredient used;

E. sodium benzoate or benzoic acid, or any combination of these, in a quantity reasonably necessary as a preservative; and

F. mint flavoring and harmless artificial green coloring, in case the fruit juice ingredient or combination of fruit juice ingredients is extracted from apple, crabapple, pineapple, or two or all of such fruits.

Such mixture is concentrated by heat to such point that the soluble-solids content of the finished jelly is not less than 65 percent, as determined by the method prescribed in "Official Methods of Analysis of the Association of Official Agricultural Chemists", seventh edition, page 495, under "Solids by Means of Refractometer — Official."

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

## 1555.1840 WEIGHT OF FRUIT JUICE INGREDIENT.

Any requirement of parts 1555.1830 to 1555.1910 with respect to the weight of any fruit juice ingredient, whether concentrated, unconcentrated, or diluted, means the weight determined by the following method: determine the percent of soluble solids in such fruit juice ingredient by the method of soluble solids referred to in part 1555.1830; multiply the percent so found by the weight of such fruit juice ingredient; divide the result by 100; subtract from the quotient the weight of any added sugar or other added solids; and multiply the remainder by the factor for such fruit juice ingredient prescribed in part 1555.1860. The result is the weight of the fruit juice ingredient.

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

## 1555.1850 FRUIT JUICE INGREDIENTS.

Each of the fruit juice ingredients referred to in part 1555.1830 is the filtered or strained liquid extracted with or without the application of heat and with or without the addition of water, from one of the following mature, properly prepared fruits which are fresh, frozen, and/or canned.

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

## 1555.1860 FACTOR.

The factors referred to in part 1555.1840 are:

Name of fruit:

Apple	7.5
Apricot	7.0
Blackberry (other than dewberry)	10.0
Black raspberry	9.0
Cherry	7.0
Crabapple	6.5
Cranberry	9.5
Damson, damson plum	7.0
Dewberry (other than boysenberry, loganberry and youngberry)	10.0
Fig	5.5
Gooseberry	12.0
Grape	7.0
Grapefruit	11.0
Greengage, greengage plum	7.0
Guava	13.0
Loganberry	9.5
Orange	8.0
Peach	8.5
Pineapple	7.0

Plum (other than damson, greengage, and prune)	7.0
Pomegranate	5.5
Quince	7.5
Raspberry, red raspberry	9.5
Red currant, currant (other than black currant)	9.5
Strawberry	12.5
Youngberry	10.0

In any combination of two, three, four, or five of such fruit juice ingredients the weight of each is not less than one-fifth of the weight of the combination. Each such fruit juice ingredient in any such combination is an optional ingredient.

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

#### 1555.1870 OPTIONAL SACCHARINE INGREDIENTS.

The optional saccharine ingredients referred to in part 1555.1830 are:

- A. sugar;
- B. invert sugar syrup;
- C. any combination composed of the optional saccharine ingredients in items A and B;

D. any combination composed of dextrose and the optional saccharine ingredient in item A, B, or C;

E. any combination composed of corn syrup, dried corn syrup, glucose syrup, or any two or more of the foregoing, with the optional saccharine ingredient in item A, B, C, or D, in which the weight of the solids of corn syrup, dried corn syrup, glucose syrup, or the sum of the weights of the solids of corn syrup, dried corn syrup and glucose syrup, in case two or more of these are used, does not exceed one-fourth of the total weight of the solids of the combined saccharine ingredients;

F. honey; and

G. any combination composed of honey and the optional saccharine ingredient in item A, B, or C, in which the weight of the solids of each component except honey is not less than one-tenth of the weight of the solids of such combination and the weight of honey solids is not less than two-fifths of the weight of the solids of such combination.

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

#### 1555.1880 DEFINITIONS.

Subpart 1. **Applicability.** For the purposes of parts 1555.1830 to 1555.1910, the following terms have the meanings given them.

Subp. 2. **Weight of optional saccharine ingredient.** The weight of any optional saccharine ingredient means the weight of the solids of such ingredient.

Subp. 3. **Sugar.** The term "sugar" means refined sugar (sucrose).

Subp. 4. **Invert sugar syrup.** The term "invert sugar syrup" means a syrup made by inverting or partly inverting sugar or partly refined sugar; its ash content is not more than 0.3 percent of its solids content, but if it is made from partly refined sugar, color, and flavor other than sweetness are removed.

Subp. 5. **Corn syrup and glucose syrup.** The term "corn syrup" means a clarified, concentrated aqueous solution of the products obtained by the incomplete hydrolysis of corn-starch. The solids of corn syrup contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose. The term "glucose syrup" means a syrup which conforms to the definition in this part for corn syrup, except that it is made from any edible starch.

Subp. 6. **Dextrose.** The term "dextrose" means refined anhydrous or hydrated dextrose made from any starch.

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

#### 1555.1890 JELLY NAMES.

The name of each jelly for which a definition and standard of identity is prescribed by parts 1555.1830 to 1555.1910 is as follows: in case the jelly is made with a single fruit juice

ingredient, the name is "jelly," preceded or followed by the name or synonym whereby the fruit from which such fruit juice ingredient was extracted is designated in part 1555.1860. In case the jelly is made with a combination of two, three, four, or five fruit juice ingredients, the name is "jelly," preceded or followed by the words "mixed fruit" or by the names or synonyms whereby the fruits from which the fruit juice ingredients were extracted are designated in part 1555.1860, in the order of predominance, if any, of the weights of such fruit juice ingredients in the combination.

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

#### 1555.1900 OPTIONAL INGREDIENTS LABELING.

Subpart 1. **Spice.** When the optional ingredient in part 1555.1830, item A is used, the label shall bear the word "spiced" or the statement "spice added" or "with added spice"; but in lieu of the word "spice" in such statements the common name of the spice may be used.

Subp. 2. **Sodium benzoate or benzoic acid.** When the optional ingredient in part 1555.1830, item E is used, the label shall bear the words "sodium benzoate" or "benzoic acid" or "sodium benzoate and benzoic acid," as the case may be, followed by the words "added as preservative."

Subp. 3. **Mint flavoring and harmless artificial green coloring.** When the optional ingredient in part 1555.1830, item F is used, the label shall bear the statement "flavoring and artificial coloring added" or "with added flavoring and artificial coloring." The word "flavoring" in such statement may be preceded by the word "mint."

Subp. 4. **Honey combination.** When the optional saccharine ingredient in part 1555.1870, item G is used, the label shall bear the names of the components of the combination whereby such components are designated in part 1555.1870, in the order of predominance, if any, of the weight of such components in the combination. Such names shall be preceded by the words "prepared with."

Subp. 5. **Honey.** When the optional saccharine ingredient in part 1555.1870, item F is used, the label shall bear the statement "prepared with honey."

Subp. 6. **Combination of fruit juice ingredients.** When a combination of two, three, four, or five fruit juice ingredients is used, and the jelly is designated on its label by the word "jelly," preceded or followed by the words "mixed fruit," the label shall bear the names of synonyms whereby such fruits are designated in part 1555.1860, in the order of predominance, if any, of the weights of such fruit juice ingredients in the combination.

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

#### 1555.1910 PLACEMENT OF OPTIONAL INGREDIENTS STATEMENTS.

Wherever the name specified in part 1555.1890 appears on the label of the jelly so conspicuously as to be easily seen under customary conditions of purchase, the words and statements herein specified, showing the optional ingredients used, shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that the varietal name of the fruit used in preparing such jelly may so intervene.

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

#### 1555.1920 PRESERVES, JAMS.

The preserves or jams for which definitions and standards of identity are prescribed by parts 1555.1920 to 1555.1980 are the viscous or semisolid foods each of which is made from a mixture composed of not less than 45 parts by weight (see part 1555.1940) of one of the fruit ingredients specified in part 1555.1930 to each 55 parts by weight (see part 1555.1960, subpart 2) of one of the optional saccharine ingredients specified in part 1555.1950. Such mixture may also contain one or more of the following optional ingredients:

A. spice;

B. a vinegar, lemon juice, lime juice, citric acid, lactic acid, malic acid, tartaric acid, or any combination of two or more of these, in a quantity which reasonably compensates for deficiency, if any, of the natural acidity of the fruit ingredient;

C. pectin, in a quantity which reasonably compensates for deficiency, if any, of the natural pectin content of the fruit ingredient;

D. sodium citrate, sodium potassium tartrate, or any combination of these, in a quantity the proportion of which is not more than three ounces avoirdupois to each 100 pounds of the saccharine ingredient used;

E. sodium benzoate or benzoic acid or any combination of these, in a quantity reasonably necessary as a preservative. Such mixture, with or without added water, is concentrated by heat to such point that the soluble-solids content of the finished preserve is not less than 68 percent if the fruit ingredient is specified in part 1555.1930, subpart 2, and not less than 65 percent if the fruit ingredient is specified in part 1555.1930, subpart 3. The soluble-solids content is determined by the method prescribed in "Official Methods of Analysis of the Association of Official Agricultural Chemists," seventh edition, page 322, under "Soluble Solids in Fresh and Canned Fruits, Jams, Marmalades and Preserves — First Action," except that no correction is made for water-insoluble solids.

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

### 1555.1930 FRUIT INGREDIENTS.

Subpart 1. **Definition.** The fruit ingredients referred to in part 1555.1920 are the mature, properly prepared fruits in subparts 2 and 3 which are fresh, frozen, and/or canned.

#### Subp. 2. **Group I.**

- A. Blackberry (other than dewberry)
- B. Black raspberry
- C. Blueberry
- D. Boysenberry
- E. Cherry
- F. Crabapple
- G. Dewberry (other than boysenberry, loganberry, and youngberry)
- H. Elderberry
- I. Grape
- J. Grapefruit
- K. Huckleberry
- L. Loganberry
- M. Orange
- N. Pineapple
- O. Raspberry, red raspberry
- P. Rhubarb
- Q. Strawberry
- R. Tangerine
- S. Tomato
- T. Yellow tomato
- U. Youngberry

Any combination of two, three, four, or five of such fruits in which the weight of each is not less than one-fifth of the weight of the combination; except that the weight of pineapple may be not less than one-tenth of the weight of the combination.

#### Subp. 3. **Group II.**

- A. Apricot
- B. Cranberry
- C. Damson, damson plum
- D. Fig
- E. Gooseberry
- F. Greengage, greengage plum
- G. Guava
- H. Nectarine
- I. Peach

J. Pear

K. Plum (other than greenage plum and damson plum)

L. Quince

M. Red currant, currant (other than black currant)

Any combination of two, three, four, or five of such fruits or one or more of such fruits with one or more of the individual fruits specified in subpart 2, in which the weight of each is not less than one-fifth of the weight of the combination; except that the weight of pineapple may be not less than one-tenth of the weight of the combination. Any combination of apple and one, two, three, or four of the individual fruits specified in this group or subpart 2 in which the weight of each is not less than one-fifth, and the weight of apple is not more than one-half, of the weight of the combination; except that the weight of pineapple may be not less than one-tenth of the weight of the combination. In any combination of two, three, four, or five fruits, each such fruit is an optional ingredient. For the purposes of parts 1555.1920 to 1555.1980, the word "fruit" includes the vegetables specified in this part.

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

#### 1555.1940 WEIGHT OF FRUIT, COMBINATION OF FRUITS, OR FRUIT INGREDIENT.

Any requirement of parts 1555.1920 to 1555.1980 with respect to the weight of any fruit, combination of fruits, or fruit ingredient means:

A. the weight of fruit exclusive of the weight of any sugar, water, or other substance added for any processing or packaging or canning, or otherwise added to such fruit;

B. in the case of fruit prepared by the removal, in whole or in part, of pits, seeds, skins, cores, or other parts, the weight of such fruit, exclusive of the weight of all such substances removed therefrom; and

C. in the case of apricots, cherries, grapes, nectarines, peaches, and all varieties of plums, whether or not pits and seeds are removed therefrom, the weight of such fruit, exclusive of the weight of such pits and seeds.

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

#### 1555.1950 OPTIONAL SACCHARINE INGREDIENTS.

The optional saccharine ingredients referred to in part 1555.1920 are:

A. sugar;

B. invert sugar syrup;

C. any combinations composed of the optional saccharine ingredients in items A and B;

D. any combination composed of dextrose and the optional saccharine ingredient in item A, B, or C;

E. any combination composed of corn syrup, dried corn syrup, glucose syrup, or any two or more of the foregoing, with the optional saccharine ingredient in item A, B, C, or D, in which the weight of the solids of corn syrup, dried corn syrup, glucose syrup, or the sum of the weights of the solids of corn syrup, dried corn syrup, and glucose syrup, in case two or more of these are used, does not exceed one-fourth of the total weight of the solids of the combined saccharine ingredients;

F. honey; and

G. any combination composed of honey and the optional saccharine ingredient in item A, B, or C, in which the weight of the solids of each component except honey is not less than one-tenth of the weight of the solids of such combination and the weight of honey solids is not less than two-fifths of the weight of the solids of such combination.

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

#### 1555.1960 DEFINITIONS.

Subpart 1. **Applicability.** For the purposes of parts 1555.1920 to 1555.1980, the following terms have the meanings given them.

Subp. 2. **Weight of optional saccharine ingredient.** The weight of any optional saccharine ingredient means the weight of the solids of such ingredient.

Subp. 3. **Sugar.** The term "sugar" means refined sugar (sucrose).

Subp. 4. **Invert sugar syrup.** The term "invert sugar syrup" means a syrup made by inverting or partly inverting sugar or partly refined sugar; its ash content is not more than 0.3 percent of its solids content, but if it is made from partly refined sugar, color and flavor other than sweetness are removed.

Subp. 5. **Corn syrup and glucose syrup.** The term "corn syrup" means a clarified, concentrated aqueous solution of the products obtained by incomplete hydrolysis of cornstarch. The solids of corn syrup contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose. The term "glucose syrup" means a syrup which conforms to the definition in this subpart for corn syrup, except that it is made from any edible starch.

Subp. 6. **Dextrose.** The term "dextrose" means refined anhydrous or hydrated dextrose made from any starch.

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

#### 1555.1965 PRESERVE OR JAM NAME.

The name of each preserve or jam for which a definition and standard of identity is prescribed by parts 1555.1920 to 1555.1980 is as follows: if the fruit ingredient is a single fruit, the name is "preserve" or "jam," preceded or followed by the name or synonym whereby such fruit is designated in part 1555.1930. If the fruit ingredient is a combination of two, three, four, or five fruits, the name is "preserve" or "jam," preceded or followed by the words "mixed fruit" or by the names or synonyms whereby such fruits are designated in part 1555.1930, in the order of predominance, if any, of the weights of such fruits in the combination.

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

#### 1555.1970 OPTIONAL INGREDIENTS LABELING.

Subpart 1. **Spice.** When the optional ingredient in part 1555.1920, item A is used, the label shall bear the word "spiced" or the statement "spice added" or "with added spice"; but in lieu of the word "spice" in such statements the common name of the spice may be used.

Subp. 2. **Sodium benzoate or benzoic acid.** When the optional ingredient in part 1555.1920, item E is used, the label shall bear the words "sodium benzoate" or "benzoic acid" or "sodium benzoate and benzoic acid," as the case may be, followed by the words "added as preservative."

Subp. 3. **Honey combination.** When the optional saccharine ingredient in part 1555.1950, item G is used, the label shall bear the names of the components of the combination whereby such components are designated in part 1555.1950, in the order of predominance, if any, of the weights of such components in the combination. Such names shall be preceded by the words "prepared with."

Subp. 4. **Honey.** When the optional saccharine ingredient in part 1555.1950, item F is used, the label shall bear the statement "prepared with honey."

Subp. 5. **Combination of fruits.** When the fruit ingredient is a combination of two, three, four, or five fruits and the preserve is designated on its label by the name "preserve" or "jam," preceded or followed by the words "mixed fruit," the label shall bear the names or synonyms whereby such fruits are designated in part 1555.1930, in the order of predominance, if any, of the weights of such fruits in the combination.

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

#### 1555.1980 PLACEMENT OF OPTIONAL INGREDIENTS STATEMENTS.

Wherever the name specified in part 1555.1965 appears on the label of the preserve so conspicuously as to be easily seen under customary conditions of purchase, the words and statements herein specified, showing the optional ingredients used, shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that the varietal name of the fruit used in preparing such preserve may so intervene.

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



## FRUITS AND RELATED PRODUCTS

**1555.1990 FRUIT.**

"Fruit" is the clean, sound, edible, fleshy fructification of a plant and is characterized by its sweet, acid, and/or ethereal flavor.

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

**1555.2000 FRESH FRUIT.**

"Fresh fruit" is fruit which has undergone no material change other than ripening since the time of gathering.

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

**1555.2100 GRAPEFRUIT, POMELO.**

"Grapefruit," "pomelo" is the sound, mature fruit of citrus grandis osbeck. The juice of the mature fruit contains not less than seven parts of soluble solids to each part of acid calculated as citric acid without water or crystallization.

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

**1555.2110 ORANGE.**

"Orange" (common sweet, or round) is the sound, mature fruit of citrus sinensis osbeck. The juice of the mature fruit contains not less than eight parts of soluble solids to each part of acid calculated as citric acid without water or crystallization.

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

**1555.2120 DRIED FRUIT.**

"Dried fruit" is the clean, sound product resulting from the evaporation of the greater portion of the water from properly prepared fresh fruit. The term "sun-dried" is commonly used to designate the product dried without the use of artificial heat. The terms "evaporated" and "dehydrated" are commonly used to designate the product dried by the use of artificial heat.

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

**1555.2130 EVAPORATED APPLES.**

"Evaporated apples" are peeled, cored, and sliced apples from which the greater portion of the moisture has been evaporated. The finished product contains not more than 24 percent of moisture.

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

**1555.2140 DRIED APRICOTS.**

"Dried apricots" are halved and pitted ripe apricots from which the greater portion of the moisture has been evaporated. Before packing, the dried fruit is commonly processed by washing. The finished product contains not more than 26 percent of moisture.

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

**1555.2150 DRIED PEACHES.**

"Dried peaches" are halved and pitted ripe peaches from which the greater portion of the moisture has been evaporated. Before packing, the dried fruit is commonly processed by washing. The finished product contains not more than 26 percent of moisture.

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

**1555.2160 DRIED PRUNES.**

"Dried prunes" are whole, ripe prune plums from which the greater portion of the moisture has been evaporated. Before packing, the dried fruit is commonly processed by treatment with boiling water or steam. The finished product contains, in the fleshy portion, not more than 25 percent of moisture.

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

**1555.2170 COLD-PACK FRUIT.**

"Cold-pack fruit" is the clean, sound product obtained by packing, in a suitable container, properly prepared fresh fruit, with or without the addition of sugar (sucrose), and maintaining it at a temperature sufficiently low to ensure its preservation.

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

**1555.2180 FRUIT JUICE.**

"Fruit juice" is the clean, unfermented liquid obtained from the first pressing of sound, ripe, fresh fruit or of its pulp and conforms in name to the fruit from which it is obtained.

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

**1555.2190 GRAPE JUICE.**

"Grape juice" is the clean, unfermented juice of sound, ripe grapes. It is obtained by a single pressing of the fruit, with or without the aid of heat and with or without the removal of insoluble matter.

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

**1555.2200 ORANGE JUICE.**

"Orange juice" is the clean, unfermented juice obtained from sound, ripe, sweet oranges. It may contain a portion of the pulp and/or of the volatile oil.

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

**VEGETABLES AND RELATED PRODUCTS****1555.2205 VEGETABLES.**

"Vegetables" are the succulent, clean, sound edible parts of herbaceous plants used for culinary purposes.

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

**1555.2210 DRIED VEGETABLES.**

"Dried vegetables" are the clean, sound products made by drying properly matured and prepared vegetables in such a way as to take up no harmful substance and conform in name to the vegetables used in their preparation; "sun-dried vegetables" are dried vegetables made by drying without the use of artificial means; "evaporated vegetables" are dried vegetables made by drying with the use of artificial means.

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

**1555.2220 PICKLES.**

"Pickles" are the clean, sound, properly prepared cucumbers which may or may not have been subjected to fermentation and curing in salt brine, and which are safely and suitably preserved in an acetic or lactic acid solution to which may have been added other vegetables, spices, flavorings, salt, turmeric, natural sweeteners, or other food additives or natural or artificial color additives for food as provided for by the federal Food, Drug and Cosmetic Act, as amended, and as specified in Code of Federal Regulations, title 21, part 121 and part 8, as revised, and in accordance with the state law. This definition does not include salt pickles as described in part 1555.2240.

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

**1555.2225 PICKLED VEGETABLES.**

"Pickled vegetables" are vegetables other than cucumbers prepared as described under part 1555.2220 and conform in name to the vegetable used.

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

**1555.2230 LABELING.**

The labels for such pickles and pickled vegetables, in addition to all other information required by Minnesota food law and rules, shall bear a list of ingredients in the descending order of predominance; provided, that spices, flavorings, and colorings may be designated as

## 1555.2230 FOOD DEFINITIONS AND STANDARDS

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spices, flavorings, and colorings without naming each, and preservatives, if used, shall be listed by their common or usual names in one of the following qualifying statements: “\_\_\_\_\_ added as a preservative,” or “\_\_\_\_\_, a preservative,” or “preserved with \_\_\_\_\_,” the blank to contain the name of the preservative used.

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

## 1555.2240 SALT PICKLES.

Salt pickles are clean, sound, immature cucumbers, preserved in a solution of common salt, with or without spices.

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

## 1555.2250 SWEET PICKLES.

“Sweet pickles” are pickled cucumbers or other vegetables sweetened with sugar, dextrose, corn syrup, or corn syrup solids.

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

## 1555.2260 SAUERKRAUT.

“Sauerkraut” is the clean, sound product of characteristic acid flavor, obtained by the full fermentation, chiefly lactic, of properly prepared and shredded cabbage in the presence of not less than two percent nor more than three percent of salt. It contains upon completion of the fermentation not less than one percent of acid, expressed as lactic acid, to which may be added additional lactic acid, peppers, pickled vegetables, spices, flavorings, salt, and other food additives as provided by the federal Food, Drug and Cosmetic Act, as amended, and as specified in Code of Federal Regulations, title 21, part 121, as revised in accordance with the Administrative Procedure Act.

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

## 1555.2270 LABELING.

The label for sauerkraut, in addition to all other information required by Minnesota food law and rules, shall bear a list of ingredients in descending order of predominance; provided, that spices and flavorings may be designated as spices and flavorings without naming each, and preservatives, if used, shall be listed by their common or usual names in one of the following qualifying statements: “\_\_\_\_\_ added as a preservative,” or “\_\_\_\_\_, a preservative,” or “preserved with \_\_\_\_\_,” the blank to contain the name of the preservative used.

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

## SUGAR AND RELATED PRODUCTS

## 1555.2280 SUGAR.

“Sugar” is the product chemically known as sucrose (saccharose); chiefly obtained from sugar cane, sugar beets, sorghum, maple, and palm.

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

## 1555.2290 GRANULATED, LOAF, CUT, MILLED, AND POWDERED SUGARS.

Granulated, loaf, cut, milled, and powdered sugars, are different forms of sugar and contain at least 99.5 percent sucrose.

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

## 1555.2300 MAPLE SUGAR, MAPLE CONCRETE.

“Maple sugar,” “maple concrete” is the solid product resulting from the evaporation of maple sap or maple syrup.

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

## 1555.2310 MASSECUITE, MELADA, MUSH SUGAR, AND CONCRETE.

“Massecuite,” “melada,” “mush sugar,” and “concrete” are products made by evaporating the purified juice of a sugar-producing plant or a solution of sugar to a solid or semisolid consistence and in which the sugar chiefly exists in a crystalline state.

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

**1555.2320 MOLASSES.**

"Molasses" is the product left after separating the sugar from massecuite, melada, mush sugar, or concrete and contains not more than 25 percent water and not more than five percent ash.

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

**1555.2330 REFINERS' SYRUP, TREACLE.**

"Refiners' syrup," "treacle" is the residual liquid product obtained in the process of refining raw sugars and contains not more than 25 percent of water and not more than eight percent ash.

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

**1555.2340 SYRUP.**

"Syrup" is the sound product made by purifying and evaporating the juice of a sugar-producing plant without removing any of the sugar.

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

**1555.2350 SUGARCANE SYRUP.**

"Sugarcane syrup" is syrup made by the evaporation of the juice of the sugarcane or by the solution of sugarcane concrete and contains not more than 30 percent of water and not more than 2.5 percent ash.

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

**1555.2360 SORGHUM SYRUP.**

"Sorghum syrup" is the syrup obtained by the clarification and concentration of the juice of the sugar sorghum and contains not more than 30 percent water nor more than 6.25 percent ash calculated on a dry basis.

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

**1555.2370 MAPLE SYRUP.**

"Maple syrup" is syrup made by the evaporation of maple sap or by the solution of maple concrete and contains not more than 35 percent water and weighs not less than 11 pounds to the gallon (231 cubic inches).

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

**1555.2380 SUGAR SYRUP.**

"Sugar syrup" is the product made by dissolving sugar to the consistency of a syrup and contains not more than 35 percent water.

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

**1555.2390 DEXTROSE.**

"Dextrose" is a crystalline sugar made by hydrolyzing starch of a starch-containing substance until a greater part of the starch is converted into dextrose. The nondextrose materials are removed after crystallization. Dextrose appears in commerce in two forms, the anhydrous and hydrous. The former is crystallized without water of crystallization and contains not less than 99 percent dextrose and not more than .05 percent ash. The latter, crystallized with water of crystallization, contains not less than 90 percent dextrose and not more than .10 percent ash. The ash consists chiefly of sodium chloride.

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

**1555.2400 CORN SYRUP.**

"Corn syrup" is a viscous noncrystallizing solution produced by the partial hydrolysis of corn starch, the conversion being accomplished by the use of one of or a combination of acid, alkaline, or enzymatic catalysis. The degree of conversion is indicated by the percentage of reducing sugars calculated as dextrose on a solids basis and referred to as dextrose equivalent (D.E.). The D.E. of commercial corn syrup will range between 24 and 70. The moisture of corn syrup depends upon the dextrose equivalent and the degree of concentra-

## 1555.2400 FOOD DEFINITIONS AND STANDARDS

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tion. It is usually offered at concentrations of 41 to 46 degrees Baume, reported at 100 degrees Fahrenheit or it may be offered in a dry form under the name of corn syrup solids. Corn syrup is relatively free from color, odor, or flavor and contains not more than 0.50 percent ash.

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

## 1555.2410 CANDY.

"Candy" is a product made from a saccharine substance or substances, with or without the addition of harmless coloring, flavoring, or filling materials, and contains no terra alba, barytes, talc, chrome yellow, or other mineral substances or poisonous colors or flavors or other ingredients deleterious or detrimental to health or any vinous, malt, or spirituous liquor or compound or narcotic drug.

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

## TEA AND COFFEE

## 1555.2420 TEA.

"Tea" is the tender leaves, leaf buds, and tender internodes of different varieties of thea sinensis L., prepared and cured by recognized methods of manufacture. It conforms in variety and place of production to the name it bears; contains not less than four percent nor more than seven percent of ash; and meets the provisions of the Act of Congress approved March 2, 1897, as amended, regulating the importation and inspection of tea.

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

## 1555.2430 COFFEE.

"Coffee" is the seed of cultivated varieties of *Coffea arabica*, *C. liberica* and *C. robusta*. "Green coffee," "raw coffee," "unroasted coffee" is coffee freed from all but a small portion of its spermoderm and conforms in variety and in place of production to the name it bears. "Roasted coffee," "coffee" is properly cleaned green coffee which by the action of heat (roasting) has become brown and has developed its characteristic aroma.

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

## EDIBLE VEGETABLE OILS AND FATS

## 1555.2440 EDIBLE FATS AND EDIBLE OILS.

"Edible fats" and "edible oils" are such glycerids of the fatty acids as are recognized to be wholesome foods. They are dry and sweet in flavor and odor.

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

## 1555.2450 CACAO FAT, COCOA FAT.

"Cacao fat," "cocoa fat" is edible fat obtained from sound cacao beans (seed of *Theobroma cacao* L. or other closely related species), either before or after roasting.

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

## 1555.2460 COCONUT OIL, COPRA OIL.

"Coconut oil," "copra oil" is the edible oil obtained from the kernels of the coconut (*Cocos mucifera* L. or *Cocoa butyracea* L.).

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

## 1555.2470 COCHIN OIL.

"Cochin oil" is coconut oil prepared in Cochin (Malabar).

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

## 1555.2480 CEYLON OIL.

"Ceylon oil" is coconut oil prepared in Sri Lanka.

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

**1555.2490 CORN OIL, MAIZE OIL.**

"Corn oil," "maize oil" is the edible oil obtained from the germ of Indian corn, maize (*Zea mays* L.).

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

**1555.2500 COTTONSEED OIL.**

"Cottonseed oil" is the edible oil obtained from the seed of the cotton plant (*Gossypium herbaceum* L.) or from the seed of other species of *Gossypium*.

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

**1555.2510 OLIVE OIL, SWEET OIL.**

"Olive oil," "sweet oil" is the edible oil obtained from the sound, mature fruit of the olive tree (*Olea europaea* L.).

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

**1555.2520 PALM KERNEL OIL.**

"Palm kernel oil" is the edible oil obtained from the kernel of the fruit of the palm tree (*Elaeis guineensis* L. or *Elaeis melanococca* Gart.).

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

**1555.2530 PEANUT OIL, ARACHIS OIL, EARTHNUIT OIL.**

"Peanut oil," "arachis oil," "earthnut oil" is the edible oil obtained from the peanut (*Arachis hypogaea* L.).

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

**1555.2540 POPPY SEED OIL.**

"Poppy seed oil" is the edible oil obtained from the seeds of the poppy (*Papaver somniferum* L.).

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

**1555.2550 RAPESEED OIL, RAPE OIL, COLZA OIL.**

"Rapeseed oil," "rape oil," "colza oil" is the edible oil obtained from the seed of the rape plant (*Brassica napus* L.), or from the seed of closely related *Brassica* species, which yield oils similar in composition and character to the oil obtained from the seed of *Brassica napus* L.

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

**1555.2560 SOYBEAN OIL, SOY OIL, SOJA OIL.**

"Soybean oil," "soy oil," "soja oil" is the edible oil obtained from the seed of the soybean plant (*Soja max.* (L.) Piper, *Glycine soja* Sieb, 7 Zucc.; — *Soja hispida* Moench).

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

**1555.2570 SESAME OIL, GINGILLI OIL, TEEL OIL, BENNE OIL.**

"Sesame oil," "gingilli oil," "teel oil," "benne oil" is the edible oil obtained from the seed of the sesame plant (*Sesamum indicum*, De. Candolle; *Sesamum radiatum*, Schum and Thonn; *Sesamum orientale* L.).

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

**1555.2580 SUNFLOWER OIL.**

"Sunflower oil" is the edible oil obtained from the seed of the sunflower (*Helianthus annuus* L.).

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

**SPICES AND CONDIMENTS****1555.2590 TERMS "DRIED" AND "STARCH."**

As used in parts 1555.2590 to 1555.3180, the term "dried" refers to the air-dried product and the term "starch" refers to starch as determined by the official diastase method of the Association of Official Agricultural Chemists.

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

## 1555.2600 FOOD DEFINITIONS AND STANDARDS

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**1555.2600 SPICES.**

Spices are aromatic vegetable substances used for the seasoning of food. They are clean, sound, and true to name and from them no portion of any volatile oil or other flavoring principle has been removed.

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

**1555.2610 ALLSPICE, PIMIENTO.**

"Allspice," "pimiento" is the dried, nearly ripe fruit of *Pimenta officinalis* Lindl. It contains not less than eight percent of quercitannic acid (calculated from the total oxygen absorbed by the aqueous extract), not more than 25 percent of crude fiber, not more than six percent of total ash, nor more than 0.4 percent of ash insoluble in hydrochloric acid.

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

**1555.2620 ANISE, ANISEED.**

"Anise," "aniseed" is the dried fruit of *Pimpinella anisum* L. It contains not more than nine percent of total ash nor more than 1.5 percent ash insoluble in hydrochloric acid.

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

**1555.2630 BAY LEAVES.**

"Bay leaves" are the dried leaves of *Laurus nobilis* L.

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

**1555.2640 CAPERS.**

"Capers" are the flower buds of *Capparis spinosa* L.

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

**1555.2650 CARAWAY, CARAWAY SEED.**

"Caraway," "caraway seed" is the dried fruit of *Carum carvi* L. It contains not more than eight percent of total ash nor more than 1.5 percent of ash insoluble in hydrochloric acid.

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

**1555.2660 CARDAMON.**

"Cardamon" is the dried, nearly ripe fruit of *Elettaria cardamon* Maton.

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

**1555.2670 CARDAMON SEED.**

"Cardamon seed" is the dried seed of cardamon. It contains not more than eight percent total ash nor more than three percent of ash insoluble in hydrochloric acid.

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

**1555.2680 RED PEPPER.**

"Red pepper" is the red, dried, ripe fruit of any species of *Capsicum*. It contains not more than eight percent of total ash nor more than one percent ash insoluble in hydrochloric acid.

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

**1555.2690 CAYENNE PEPPER, CAYENNE.**

"Cayenne pepper," "cayenne" is the dried, ripe fruit of *Capsicum frutescens* L., *Capsicum baccatum* L., or some other small-fruited species of *Capsicum*. It contains not less than 15 percent of nonvolatile ether extract, not more than 1.5 percent of starch, not more than 28 percent of crude fiber, not more than eight percent of total ash, nor more than 1.25 percent of ash insoluble in hydrochloric acid.

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

**1555.2700 PAPRIKA.**

"Paprika" is the dried, ripe fruit of *Capsicum annum* L. It contains not more than 8.5 percent of total ash nor more than one percent of ash insoluble in hydrochloric acid. The iodine number of its extracted oil is not less than 125 nor more than 136.

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

**1555.2710 HUNGARIAN PAPRIKA.**

Subpart 1. **Hungarian paprika.** Hungarian paprika is paprika having the pungency and flavor characteristic of that grown in Hungary.

Subp. 2. **Rosenpaprika, rozsapaprika, rose paprika.** Rosenpaprika, rozsapaprika, rose paprika, is Hungarian paprika prepared by grinding specially selected pods of paprika, from which the placentae, stalks, and stems have been removed. It contains no more seeds than the normal pods, not more than 18 percent of nonvolatile ether extract, not more than 23 percent of crude fiber, not more than six percent of total ash nor more than 0.4 percent of ash insoluble in hydrochloric acid.

Subp. 3. **Koenigspaprika, king's paprika.** Koenigspaprika, king's paprika, is Hungarian paprika prepared by grinding whole pods of paprika without selection and includes the seeds and stems naturally occurring with the pods. It contains not more than 18 percent of nonvolatile ether extract, not more than 23 percent of crude fiber, not more than 6.5 percent of total ash, nor more than 0.5 percent of ash insoluble in hydrochloric acid.

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

**1555.2720 PIMENTON, PIMIENTO, SPANISH PAPRIKA.**

Pimenton, pimiento, Spanish paprika, is paprika having the characteristics of that grown in Spain. It contains not more than 18 percent of nonvolatile ether extract, not more than 21 percent of crude fiber, not more than 8.5 percent of total ash, nor more than one percent ash insoluble in hydrochloric acid.

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

**1555.2730 CELERY SEED.**

Celery seed is the dried fruit of *Celeri graveolens* (L.) Britton (*Apium graveolens* L.). It contains not more than ten percent of total ash nor more than two percent ash insoluble in hydrochloric acid.

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

**1555.2740 CINNAMON.**

Cinnamon is the dried bark of cultivated varieties of *Cinnamomum zeylanicum* Nees or of *C. cassia* (L.) Blume, from which the outer layers may or may not have been removed.

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

**1555.2750 CEYLON CINNAMON.**

Ceylon cinnamon is the dried inner bark of cultivated varieties of *Cinnamomum zeylanicum* Nees.

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

**1555.2760 SAIGON CINNAMON, CASSIA.**

Saigon cinnamon, cassia, is the dried bark of cultivated varieties of *Cinnamomum cassia* (L.) Blume.

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

**1555.2770 GROUND CINNAMON, GROUND CASSIA.**

Ground cinnamon, ground cassia, is the powder made from cinnamon. It contains not more than five percent total ash nor more than two percent ash insoluble in hydrochloric acid.

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

**1555.2780 CLOVES.**

Cloves are the dried flower buds of *Caryophyllus aromaticus* L. They contain not more than five percent of clove stems, not less than 15 percent of volatile ether extract, not less than 12 percent of quercitannic acid (calculated from the total oxygen absorbed by the aqueous extract), not more than ten percent of crude fiber, not more than seven percent of total ash, nor more than 0.5 percent ash insoluble in hydrochloric acid.

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



**1555.2790 CORIANDER SEED.**

Coriander seed is the dried fruit of *Coriandrum savitum* L. It contains not more than seven percent of total ash nor more than 1.5 percent ash insoluble in hydrochloric acid.

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

**1555.2800 CUMIN SEED.**

Cumin seed is the dried fruit of *Cuminum cyminum* L. It contains not more than 9.5 percent total ash, not more than 1.5 percent ash insoluble in hydrochloric acid, nor more than five percent of harmless foreign matter.

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

**1555.2810 CURCUMA, TURMERIC.**

Curcuma, turmeric, is the dried rhizome or bulbous roots of *Curcuma longa* L.

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

**1555.2820 DILL SEED.**

Dill seed is the dried fruit of *Anethum graveolens* L. It contains not more than ten percent total ash nor more than three percent ash insoluble in hydrochloric acid.

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

**1555.2830 FENNEL SEED.**

Fennel seed is the dried fruit of cultivated varieties of *Foeniculum vulgare* Hill. It contains not more than nine percent total ash nor more than two percent ash insoluble in hydrochloric acid.

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

**1555.2840 GINGER.**

Ginger is the washed and dried or decorticated and dried, rhizome of *Zingiber officinale* Roscoe. It contains not less than 42 percent of starch, not more than eight percent of crude fiber, not more than one percent of lime (CaO), not less than 12 percent of cold-water extract, not more than seven percent of total ash, not more than two percent of ash insoluble in hydrochloric acid, nor less than two percent of ash soluble in cold water.

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

**1555.2850 JAMAICA GINGER.**

Jamaica ginger is ginger grown in Jamaica. It contains not less than 15 percent of cold-water extract and conforms in other respects to the standards for ginger.

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

**1555.2860 LIMED GINGER, BLEACHED GINGER.**

Limed ginger, bleached ginger, is whole ginger coated with carbonate of calcium. It contains not more than four percent carbonate of calcium nor more than ten percent total ash and conforms in other respects to the standards for ginger.

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

**1555.2870 HORSERADISH.**

Horseradish is the root of *Radicula armoracia* (L.) Robinson.

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

**1555.2880 PREPARED HORSERADISH.**

Prepared horseradish is comminuted horseradish, with or without a vinegar.

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

**1555.2890 MACE.**

Mace is the dried arillus of *Myristica fragrans* Hoult. It contains not less than 20 percent nor more than 30 percent nonvolatile ether extract and not more than ten percent crude fiber, not more than three percent total ash, nor more than 0.5 percent ash insoluble in hydrochloric acid.

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

**1555.2900 MACASSAR MACE, PAPUA MACE.**

Macassar mace, papua mace, is the dried arillus of *Myristica argentea* Warb.

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

**1555.2910 MARJORAM, LEAF MARJORAM.**

Marjoram, leaf marjoram, is the dried leaves with or without a small proportion of the flowering tops, of the *Majorana Hortensis* Moench. It contains not more than 16 percent total ash, not more than 4.5 percent ash insoluble in hydrochloric acid, nor more than ten percent stems and harmless foreign material.

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

**1555.3000 MUSTARD SEED.**

Subpart 1. **Mustard seed.** Mustard seed is the seed of *Sinapis alba* L. (white mustard), *Brassica nigra* (L.) Koch (black mustard), *B. Juncea* (L.) Cosson, or varieties or closely related species of the types of *B. nigra* and *B. juncea*.

Subp. 2. **White mustard.** *Sinapis alba* (white mustard) contains no appreciable amount of volatile oil. It contains not more than five percent of total ash nor more than 1.5 percent ash insoluble in hydrochloric acid.

Subp. 3. **Black mustard.** *Brassica nigra* (black mustard) and *B. juncea* yield 0.6 percent of volatile mustard oil (calculated as allylisothiocyanate). The varieties and species closely related to the types of *B. nigra* and *B. juncea* yield not less than 0.6 percent of volatile mustard oil, similar in character and composition to the volatile oils yielded by *B. nigra* and *B. juncea*. These mustard seeds contain not more than five percent of total ash nor more than 1.5 percent ash insoluble in hydrochloric acid.

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

**1555.3010 GROUND MUSTARD SEED, MUSTARD MEAL.**

“Ground mustard seed,” “mustard meal” is the unbolting, ground mustard seed and conforms to the standards for mustard seed.

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

**1555.3020 MUSTARD CAKE.**

Mustard cake is ground mustard seed, mustard meal, from which a portion of the fixed oil has been removed.

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

**1555.3030 MUSTARD FLOUR, GROUND MUSTARD, MUSTARD.**

“Mustard flour,” “ground mustard,” “mustard” is the powder made from mustard seed with the hulls largely removed and with or without the removal of a portion of the fixed oil. It contains not more than 1.5 percent starch, nor more than six percent total ash.

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

**1555.3040 PREPARED MUSTARD.**

“Prepared mustard” is a paste composed of a mixture of ground mustard seed and/or mustard flour and/or mustard cake, with salt, a vinegar, and with or without sugar and/or dextrose, spices, or other condiments. In the fat, salt, and sugar free solids it contains not more than 24 percent carbohydrates, not more than 12 percent crude fiber nor less than 5.6 percent nitrogen, the carbohydrates being calculated as starch.

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

**1555.3050 NUTMEG.**

“Nutmeg” is the dried seed of *Myristica fragrans* Houtt, deprived of its testa, with or without a thin coating of lime (CaO). It contains not less than 25 percent nonvolatile ether extract, not more than ten percent of crude fiber, not more than five percent total ash, nor more than 0.5 percent ash insoluble in hydrochloric acid.

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

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**1555.3060 MACASSAR NUTMEG, PAPUA NUTMEG, MALE NUTMEG, LONG NUTMEG.**

“Macassar nutmeg,” “papua nutmeg,” “male nutmeg,” “long nutmeg” is the dried seed of *Myristica argentea* Warb., deprived of its testa.

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

**1555.3070 PARADISE SEED, GRAINS OF PARADISE, GUINEA GRAINS, MELEGUETA PEPPER.**

“Paradise seed,” “grains of paradise,” “Guinea grains,” “melegueta pepper” is the seed of *Amomum melegueta* Roscoe.

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

**1555.3080 PARSLEY LEAVES.**

“Parsley leaves” are the leaves of *Petroselinum hortense* Hoffm. (*P. sativum* Hoffm.)

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

**1555.3090 BLACK PEPPER.**

“Black pepper” is the dried immature berry of *Piper nigrum* L. It contains not less than 6.75 percent nonvolatile ether extract, not less than 30 percent starch, not more than seven percent total ash nor more than 1.5 percent ash insoluble in hydrochloric acid.

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

**1555.3100 GROUND BLACK PEPPER.**

“Ground black pepper” is the product made by grinding the entire berry of *Piper nigrum* L. It contains the several parts of the berry in their normal proportions.

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

**1555.3110 LONG PEPPER.**

“Long pepper” is the dried fruit of *Piper longum* L.

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

**1555.3120 WHITE PEPPER.**

“White pepper” is the dried mature berry of *Piper nigrum* L. from which the outer coating or the outer and inner coatings have been removed. It contains not less than seven percent nonvolatile ether extract, not less than 52 percent starch, not more than five percent crude fiber, not more than 3.5 percent total ash, nor more than 0.3 percent ash insoluble in hydrochloric acid.

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

**1555.3130 SAFFRON.**

“Saffron” is the dried stigma of *Crocus sativus* L. It contains not more than ten percent of yellow styles and other foreign matter, not more than 14 percent volatile matter when dried at 100 degrees Celsius, not more than 7.5 percent total ash, nor more than one percent ash insoluble in hydrochloric acid.

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

**1555.3140 SAGE.**

“Sage” is the dried leaf of *Salvia officinalis* L. It contains not more than 12 percent stems (excluding petioles) and other foreign material.

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

**1555.3150 SAVORY, SUMMER SAVORY.**

“Savory,” “summer savory” is the dried leaf and flowering tops of *Satureja hortensis* L.

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

**1555.3160 STAR ANISEED.**

“Star aniseed” is the dried fruit of *Illicium verum* Hook. It contains not more than five percent total ash.

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

**1555.3170 TARRAGON.**

“Tarragon” is the dried leaves and flowering tops of *Artemisia dracunculus* L.

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

**1555.3180 THYME.**

“Thyme” is the dried leaves and flowering tops of *Thymus vulgaris* L. It contains not more than 14 percent total ash nor more than four percent ash insoluble in hydrochloric acid.

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

**FLAVORING EXTRACTS AND RELATED PRODUCTS****1555.3190 FLAVORING EXTRACT.**

“A flavoring extract” is a solution in which the primary solvent is ethyl alcohol of proper strength of the sapid and odorous principles of the fruit or plant with or without its coloring matter or added color and conforms in name to the fruit or plant used in its preparation.

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

**1555.3200 ALMOND EXTRACT.**

“Almond extract” is the flavoring extract prepared from oil of bitter almonds, free from hydrocyanic acid and contains not less than one percent by volume of oil of bitter almonds.

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

**1555.3210 OIL OF BITTER ALMONDS, COMMERCIAL.**

“Oil of bitter almonds, commercial,” is the volatile oil obtained from the seed of the bitter almond (*Amygdalus communis* L.), the apricot (*Prunus armeniaca* L.) or the peach (*Amygdalus persica* L.).

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

**1555.3220 ANISE EXTRACT.**

“Anise extract” is the flavoring extract prepared from oil of anise, and contains not less than three percent volume of oil of anise.

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

**1555.3230 OIL OF ANISE.**

Oil of anise is the volatile oil obtained from the anise seed.

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

**1555.3240 CELERY SEED EXTRACT.**

“Celery seed extract” is the flavoring extract prepared from celery seed or the oil of celery seed or both and contains not less than 0.3 percent by volume oil of celery seed.

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

**1555.3250 OIL OF CELERY SEED.**

“Oil of celery seed” is the volatile oil obtained from celery seed.

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

**1555.3260 CINNAMON EXTRACT, CASSIA EXTRACT, CASSIA CINNAMON EXTRACT.**

“Cinnamon extract,” “cassia extract,” “cassia cinnamon extract” is the flavoring product prepared from oil of cinnamon and contains not less than two percent by volume of oil of cinnamon.

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

**1555.3270 OIL OF CINNAMON, OIL OF CASSIA, OIL OF CASSIA CINNAMON.**

“Oil of cinnamon,” “oil of cassia,” “oil of cassia cinnamon” is the lead-free volatile oil obtained from the leaves or bark of *Cinnamomum cassia* (L.) Blume and contains not less than 80 percent by volume of cinnamic aldehyde.

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

## 1555.3280 FOOD DEFINITIONS AND STANDARDS

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**1555.3280 CEYLON CINNAMON EXTRACT.**

“Ceylon cinnamon extract” is the flavoring extract prepared from oil of Ceylon cinnamon and contains not less than two percent by volume of oil of Ceylon cinnamon.

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

**1555.3290 OIL OF CEYLON CINNAMON.**

“Oil of Ceylon cinnamon” is the lead-free volatile oil obtained from the bark of the Ceylon cinnamon (*Cinnamomum zeylanicum* Nees) and contains not less than 65 percent by weight of cinnamic aldehyde and not more than ten percent by weight of eugenol.

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

**1555.3300 CLOVE EXTRACT.**

“Clove extract” is the flavoring extract prepared from oil of cloves and contains not less than two percent by volume of oil of cloves.

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

**1555.3310 OIL OF CLOVES.**

“Oil of cloves” is the lead-free volatile oil obtained from cloves.

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

**1555.3320 GINGER EXTRACT.**

“Ginger extract” is the flavoring extract prepared from ginger and contains in each 100 cubic centimeters the alcohol-soluble matters from not less than 20 grams ginger.

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

**1555.3330 LEMON EXTRACT.**

“Lemon extract” is the flavoring extract prepared from oil of lemon, from lemon peel, or both, and contains not less than five percent by volume oil of lemon.

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

**1555.3340 OIL OF LEMON.**

“Oil of lemon” is the volatile oil expressed, without the aid of heat, from the fresh peel of the lemon (*Citrus limonia* Osbeck) with or without previous separation of the pulp and peel.

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

**1555.3350 TERPENELESS EXTRACT OF LEMON.**

“Terpeneless extract of lemon” is the flavoring extract prepared by shaking oil of lemon with dilute alcohol or by dissolving terpeneless oil of lemon in dilute alcohol, and contains not less than 0.2 percent by weight of citral derived from oil of lemon.

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

**1555.3360 TERPENELESS OIL OF LEMON.**

“Terpeneless oil of lemon” is oil of lemon from which all or nearly all of the terpenes have been removed.

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

**1555.3370 NUTMEG EXTRACT.**

“Nutmeg extract” is the flavoring extract prepared from oil of nutmeg and contains not less than two percent by volume of oil of nutmeg.

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

**1555.3380 OIL OF NUTMEG.**

“Oil of nutmeg” is the volatile oil obtained from nutmegs.

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

**1555.3390 ORANGE EXTRACT.**

“Orange extract” is the flavoring extract prepared from oil of orange or from orange peel or both and contains not less than five percent by volume of oil of orange.

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

**1555.3400 OIL OF ORANGE.**

“Oil of orange” is the volatile oil obtained by expression or alcoholic solution from the fresh peel of the orange (*Citrus aurantium* L.) and has an optical rotation (25 degrees Celsius) of not less than +95 degrees in a 100–millimeter tube.

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

**1555.3410 TERPENELESS EXTRACT OF ORANGE.**

“Terpeneless extract of orange” is the flavoring extract prepared by shaking oil of orange with dilute alcohol or by dissolving terpeneless oil of orange in dilute alcohol, and corresponds in flavoring strength to orange extract.

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

**1555.3420 TERPENELESS OIL OF ORANGE.**

“Terpeneless oil of orange” is oil of orange from which all or nearly all of the terpenes have been removed.

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

**1555.3430 PEPPERMINT EXTRACT.**

“Peppermint extract” is the flavoring extract prepared from oil of peppermint or from peppermint or both and contains not less than three percent by volume of oil of peppermint.

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

**1555.3440 PEPPERMINT.**

“Peppermint” is the leaves and flowering tops of *Mentha piperita* L.

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

**1555.3450 OIL OF PEPPERMINT.**

“Oil of peppermint” is the volatile oil obtained from peppermint and contains not less than 50 percent by weight of menthol.

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

**1555.3460 ROSE EXTRACT.**

“Rose extract” is the flavoring extract prepared from attar of roses with or without red rose petals and contains not less than 0.4 percent by volume of attar of roses.

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

**1555.3470 ATTAR OF ROSES.**

“Attar of roses” is the volatile oil obtained from the petals of *Rosa Damascena* Mill., *R. Centifolia* L. or *R. Moschata* Herrm.

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

**1555.3480 SAVORY EXTRACT.**

“Savory extract” is the flavoring extract prepared from oil of savory or from savory or both and contains not less than 0.35 percent by volume of oil of savory.

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

**1555.3490 OIL OF SAVORY.**

“Oil of savory” is the volatile oil obtained from savory.

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

**1555.3500 SPEARMINT EXTRACT.**

“Spearmint extract” is the flavoring extract prepared from oil of spearmint or from spearmint or both and contains not less than three percent by volume of oil of spearmint.

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

**1555.3510 SPEARMINT.**

“Spearmint” is the leaves and flowering tops of *Mentha spicata* L.

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

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**1555.3520 OIL OF SPEARMINT.**

"Oil of spearmint" is the volatile oil obtained from spearmint.

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

**1555.3530 STAR ANISE EXTRACT.**

"Star anise extract" is the flavoring extract prepared from oil of star anise and contains not less than three percent by volume of oil of star anise.

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

**1555.3540 OIL OF STAR ANISE.**

"Oil of star anise" is the volatile oil distilled from the fruit of the star anise (*Illicium verum* Hook).

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

**1555.3550 SWEET BASIL EXTRACT.**

"Sweet basil extract" is the flavoring extract prepared from oil of sweet basil or from sweet basil or both and contains not less than 0.1 percent by volume of oil of sweet basil.

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

**1555.3560 SWEET BASIL; OIL OF SWEET BASIL.**

"Sweet basil" is the leaves and tops of *Ocimum basilicum* L. "Oil of sweet basil" is the volatile oil obtained from basil.

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

**1555.3570 SWEET MARJORAM EXTRACT, MARJORAM EXTRACT.**

"Sweet marjoram extract," "marjoram extract," is the flavoring extract prepared from the oil of marjoram or from marjoram or both and contains not less than one percent by volume of oil of marjoram.

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

**1555.3580 OIL OF MARJORAM.**

"Oil of marjoram" is the volatile oil obtained from marjoram.

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

**1555.3590 THYME EXTRACT; OIL OF THYME.**

"Thyme extract" is the flavoring extract prepared from oil of thyme or from thyme or both and contains not less than 0.2 percent by volume of oil of thyme. "Oil of thyme" is the volatile oil obtained from thyme.

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

**1555.3600 TONKA EXTRACT.**

"Tonka extract" is the flavoring extract prepared from tonka bean with or without one or more of the following: sugar, dextrose, glycerin. It contains not less than 0.1 percent by weight of coumarin extracted from the tonka bean, together with a corresponding proportion of the other soluble matters thereof.

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

**1555.3610 TONKA BEAN.**

"Tonka bean" is the seed of *Coumarouna odorata* Aublet (*Ditperyx odorata* Aubl.) Willd.

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

**1555.3620 WINTERGREEN EXTRACT.**

"Wintergreen extract" is the flavoring extract prepared from oil of wintergreen and contains not less than three percent by volume of oil of wintergreen.

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

**1555.3630 OIL OF WINTERGREEN.**

"Oil of wintergreen" is the volatile oil distilled from the leaves of the *Gaultheria procumbens* L.

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

**1555.3640 EXTRACT AND FLAVOR.**

The term "extract" is applicable only to substances for food flavoring purposes where the primary solvent is alcohol of proper strength and contains the same kinds and proportions of active flavoring ingredients required by the definitions and standards for extracts. The term "flavor" is applicable only to flavoring products prepared with solvents other than alcohol and shall be labeled "flavor" provided they contain the same kinds and proportions of active flavoring ingredients as are required by the definitions and standards for extracts.

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

**1555.3650 DEFINITIONS.**

Subpart 1. **Vanilla beans.** The term "vanilla beans" means the properly cured and dried fruit pods of *Vanilla planifolia* Andrews and of *Vanilla tahitensis* Moore.

Subp. 2. **Unit weight of vanilla beans.** The term "unit weight of vanilla beans" means, in the case of vanilla beans containing not more than 25 percent moisture, 13.35 ounces of such beans; and, in the case of vanilla beans containing more than 25 percent moisture, it means the weight of such beans equivalent in content of moisture-free vanilla-bean solids to 13.35 ounces of vanilla beans containing 25 percent moisture. For example, one unit weight of vanilla beans containing 33.25 percent moisture amounts to 15 ounces. The moisture content of vanilla beans is determined by the method prescribed in Official Methods of Analysis of the Association of Official Agricultural Chemists, ninth edition, 1960, sections 22.004 and 22.005, except that the toluene used is blended with 20 percent by volume of benzene and the total distillation time is four hours. To prepare samples for analysis, the pods are chopped into pieces approximately one-fourth inch longest dimension, using care to avoid moisture change.

Subp. 3. **Unit of vanilla constituent.** The term "unit of vanilla constituent" means the total sapid and odorous principles extractable from one unit weight of vanilla beans, as defined in subpart 2, by an aqueous alcohol solution in which the content of ethyl alcohol by volume amounts to not less than 35 percent.

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

**1555.3660 VANILLA EXTRACT.**

Vanilla extract is the solution in aqueous ethyl alcohol of the sapid and odorous principles extractable from vanilla beans. In vanilla extract the content of ethyl alcohol is not less than 35 percent by volume and the content of vanilla constituent, as defined in part 1555.3650, subpart 3, is not less than one unit per gallon. The vanilla constituent may be extracted directly from vanilla beans or it may be added in the form of concentrated vanilla extract or concentrated vanilla flavoring or vanilla flavoring concentrated to the semisolid form called vanilla oleoresin. Vanilla extract may contain one or more of the following optional ingredients: glycerin; propylene glycol; sugar (including invert sugar); dextrose; corn syrup (including dried corn syrup).

The specified name of the food is "vanilla extract" or "extract of vanilla."

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

**1555.3680 LABEL STATEMENTS.**

When the vanilla extract is made in whole or in part by dilution of vanilla oleoresin, concentrated vanilla extract, or concentrated vanilla flavoring, the label shall bear the statement "made from \_\_\_\_\_" or "made in part from \_\_\_\_\_," the blank being filled in with the name or names "vanilla oleoresin," "concentrated vanilla extract," or "concentrated vanilla flavoring," as appropriate. If the article contains two or more units of vanilla constituent, the name of the food shall include the designation "\_\_\_\_\_ fold," the blank being filled in with the whole number (disregarding fractions) expressing the number of units of vanilla constituent per gallon of the article.



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Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the labeling required by this part shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter.

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

## 1555.3700 CONCENTRATED VANILLA EXTRACT.

Concentrated vanilla extract conforms to the definition and standard of identity and is subject to any requirement for label statement of optional ingredients prescribed for vanilla extract by parts 1555.3660 to 1555.3680, except that it is concentrated to remove part of the solvent, and each gallon contains two or more units of vanilla constituent as defined in part 1555.3650, subpart 3. The content of ethyl alcohol is not less than 35 percent by volume.

The specified name of the food is "concentrated vanilla extract \_\_\_\_\_ fold" or "\_\_\_\_\_ fold concentrated vanilla extract," the blank being filled in with the whole number (disregarding fractions) expressing the number of units of vanilla constituent per gallon of the article. For example, "concentrated vanilla extract twofold."

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

## 1555.3720 VANILLA FLAVORING.

Vanilla flavoring conforms to the definition and standard of identity and is subject to any requirement for label statement of optional ingredients prescribed for vanilla extract by parts 1555.3660 to 1555.3680, except that its content of ethyl alcohol is less than 35 percent by volume. The specified name of the food is "vanilla flavoring."

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

## 1555.3730 CONCENTRATED VANILLA FLAVORING.

Concentrated vanilla flavoring conforms to the definition and standard of identity and is subject to any requirement for label statement of optional ingredients prescribed for vanilla flavoring by part 1555.3720, except that it is concentrated to remove part of the solvent, and each gallon contains two or more units of vanilla constituents as defined in part 1555.3650, subpart 3.

The specified name of the food is "concentrated vanilla flavoring \_\_\_\_\_ fold" or "\_\_\_\_\_ fold concentrated vanilla flavoring," the blank being filled in with the whole number (disregarding fractions) expressing the number of units of vanilla constituent per gallon of the article. For example, "concentrated vanilla flavoring threefold."

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

## 1555.3750 VANILLA-VANILLIN EXTRACT.

Vanilla-vanillin extract conforms to the definition and standard of identity and is subject to any requirement for label statement of optional ingredients prescribed for vanilla extract by parts 1555.3660 to 1555.3680, except that for each unit of vanilla constituent, as defined in part 1555.3650, subpart 3, contained therein, the article also contains not more than one ounce of added vanillin.

The specified name of the food is "vanilla-vanillin extract \_\_\_\_\_ fold" or "\_\_\_\_\_ fold vanilla-vanillin extract," followed immediately by the statement "contains vanillin, an artificial flavor (or flavoring)." The blank in the name is filled in with the whole number (disregarding fractions) expressing the sum of the number of units of vanilla constituent plus the number of ounces of added vanillin per gallon of the article. However, if the strength of the article is less than twofold, the term "\_\_\_\_\_ fold" is omitted from the name.

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

## 1555.3770 VANILLA-VANILLIN FLAVORING.

Vanilla-vanillin flavoring conforms to the definition and standard of identity and is subject to any requirement for label statement of optional ingredients prescribed for vanilla-vanillin extract by part 1555.3750, except that its content of ethyl alcohol is less than 35 percent by volume.

The specified name of the food is “vanilla–vanillin flavoring \_\_\_\_\_ fold” or “\_\_\_\_\_ fold vanilla–vanillin flavoring,” followed immediately by the statement “contains vanillin, an artificial flavor (or flavoring).” The blank in the name is filled in with the whole number (disregarding fractions) expressing the sum of the number of units of vanilla constituent plus the number of ounces of added vanillin per gallon of the article. However, if the strength of the article is less than twofold, the term “\_\_\_\_\_ fold” is omitted from the name.

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

#### **1555.3780 VANILLA POWDER.**

Vanilla powder is a mixture of ground vanilla beans or vanilla oleoresin or both, with one or more of the following optional blending ingredients: sugar; dextrose; lactose; food starch including food starch–modified; dried corn syrup. Vanilla powder may contain one or any mixture of two or more of the anticaking ingredients specified in part 1555.3790, but the total weight of any such ingredient or mixture is not more than two percent of the weight of the finished vanilla powder. Vanilla powder contains in each eight pounds not less than one unit of vanilla constituent, as defined in part 1555.3650, subpart 3.

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

#### **1555.3790 ANTICAKING INGREDIENTS.**

The anticaking ingredients referred to in part 1555.3780 are: aluminum calcium silicate, calcium silicate, calcium stearate, magnesium silicate, and tricalcium phosphate.

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

#### **1555.3800 NAME.**

The specified name of the food is “vanilla powder \_\_\_\_\_ fold” or “\_\_\_\_\_ fold vanilla powder,” except that if sugar is the optional blending ingredient used, the word “sugar” may replace the word “powder.” The blank in the name is filled in with the whole number (disregarding fractions) expressing the number of units of vanilla constituent per eight pounds of the article. However, if the strength of the article is less than twofold, the term “\_\_\_\_\_ fold” is omitted from the name.

The label of vanilla powder shall bear the common names of any of the optional ingredients specified in parts 1555.3780 and 1555.3790 that are used, except that where the alternative name “vanilla sugar” is used for designating the food, it is not required that sugar be named as an optional ingredient.

Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the labeling required by this part shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter.

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

#### **1555.3830 VANILLA–VANILLIN POWDER.**

Vanilla–vanillin powder conforms to the definition and standard of identity and is subject to any requirement for label statement of optional ingredients prescribed for vanilla powder by parts 1555.3780 to 1555.3800, except that for each unit of vanilla constituent as defined in part 1555.3650, subpart 3 contained therein, the article also contains not more than one ounce of added vanillin.

The specified name of the food is “vanilla–vanillin powder \_\_\_\_\_ fold” or “\_\_\_\_\_ fold vanilla–vanillin powder,” followed immediately by the statement “contains vanillin, an artificial flavor (or flavoring).” If sugar is the optional blending ingredient used, the word “sugar” may replace the word “powder” in the name. The blank in the name is filled in with the whole number (disregarding fractions) expressing the sum of the number of units of vanilla constituent plus the number of ounces added vanillin per eight pounds of the article. However, if the strength of the article is less than twofold, the term “\_\_\_\_\_ fold” is omitted from the name.

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

**1555.3850 IMITATIONS, FANCIFUL NAMES.**

Extracts and flavors which contain harmless artificial or synthetic compounds made to resemble the flavors of natural fruit or plant products shall be labeled with the word "imitation" printed as a part of the name of the product and in type of the same size and color as the word designating the fruit or plant, and the label shall bear no statement, design, or device whereby the purchaser may be misled into believing that the product is prepared from natural fruit or plant.

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

**1555.3860 LABEL STATEMENT.**

A food for which no standard of identity is established and which contains harmless artificial or synthetic compounds made to resemble the flavors of natural fruit or plant regardless of the type of solvent used, shall be labeled "imitation \_\_\_\_\_ flavor." The blank being filled in with the name of the fruit or plant flavor imitated.

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

**1555.3870 FANCIFUL TRADE NAMES OR COINED NAMES.**

Fanciful trade names or coined names applied to imitation extracts and flavors must not simulate the names of genuine products and must be incapable of producing a false or misleading impression in the mind of the consumer. Such fanciful or coined names must furthermore be followed by comparably conspicuous declarations that the products are imitations, together with the other information required by law, rules, or regulations.

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

**1555.3880 IMITATION VANILLA EXTRACT OR IMITATION VANILLA FLAVOR.**

An extract or flavor, consisting of a solution of vanillin, ethyl vanillin or heliotropin or mixture of any two or more, with or without added color or any other ingredient, which imitates a vanilla extract or a nonalcoholic vanilla flavor, shall be plainly labeled "imitation vanilla extract" or "imitation vanilla flavor" as the case may be and the ingredients which give the product its characteristics as an imitation shall be plainly declared on the label. Imitation extracts and flavors shall have a minimum flavoring strength not less than that produced by 0.7 percent solution of vanillin. Ethyl vanillin, when substituted for vanillin, is considered three times as strong and heliotropin two times as strong as vanillin in flavoring strength. Vanilla extract should not be listed as an ingredient of an imitation vanilla extract unless it contains at least five percent by volume of pure vanilla extract in a minimum strength product. Distinctive or fanciful names, all other rules or regulations notwithstanding, shall not be used as descriptive of these imitation products.

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

**1555.3890 EXTRACT OF VANILLA AND TONKA OR EXTRACT OF TONKA AND VANILLA.**

An extract or flavor which consists of a mixture of extract of vanilla bean and extract of tonka bean shall be labeled "extract of vanilla and tonka" or "extract of tonka and vanilla" as the case may be, the names of the flavoring ingredients being given in the order of their predominance.

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

**1555.3900 SUCH TERMS AS "DOUBLE" AND "TRIPLE."**

The terms "double," "triple," etc., when applied to extracts and flavors, are held to mean respectively two and three times the minimum standard strength.

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

**1555.3910 TERM "CONCENTRATED."**

The term "concentrated" as applied to extracts and flavors is false and misleading unless accompanied by a plain statement as to the degree of concentration in terms of the standard product.

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

**1555.3920 STRENGTH OF EXTRACT OR FLAVOR.**

An extract or flavor whether it be an imitation sold under its own name or designated by a coined name and intended to be used in lieu of the extract or flavor imitated shall be of the strength of the product imitated.

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

**VINEGARS****1555.3930 VINEGAR, CIDER VINEGAR, APPLE VINEGAR.**

"Vinegar," "cider vinegar," "apple vinegar," is the product made by the alcoholic and subsequent acetous fermentations of the juice of apples and contains in 100 cubic centimeters (20 degrees Celsius) not less than four grams of acetic acid.

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

**1555.3940 WINE VINEGAR, GRAPE VINEGAR.**

"Wine vinegar," "grape vinegar," is the product made by the alcoholic and subsequent acetous fermentations of the juice of grapes and contains, in 100 cubic centimeters (20 degrees Celsius), not less than four grams of acetic acid.

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

**1555.3950 MALT VINEGAR.**

"Malt vinegar" is the product made by the alcoholic and subsequent acetous fermentations, without distillation, of an infusion of barley malt or cereals whose starch has been converted by malt and contains, in 100 cubic centimeters (20 degrees Celsius), not less than four grams of acetic acid.

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

**1555.3960 SUGAR VINEGAR.**

"Sugar vinegar" is the product made by the alcoholic and subsequent acetous fermentations of solutions of sugar, syrup, molasses, or refiners' syrup and contains, in 100 cubic centimeters (20 degrees Celsius), not less than four grams of acetic acid.

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

**1555.3970 GLUCOSE VINEGAR.**

"Glucose vinegar" is the product made by the alcoholic and subsequent acetous fermentations of a solution of glucose, is dextrorotatory and contains, in 100 cubic centimeters (20 degrees Celsius), not less than four grams of acetic acid.

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

**1555.3980 SPIRIT VINEGAR, DISTILLED VINEGAR, GRAIN VINEGAR.**

"Spirit vinegar," "distilled vinegar," "grain vinegar," is the product made by the acetous fermentation of dilute distilled alcohol and contains, in 100 cubic centimeters (20 degrees Celsius), not less than four grams of acetic acid.

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

**ALMOND PASTES AND KERNEL PASTES****1555.3990 ALMOND PASTE.**

"Almond paste" is the plastic product obtained by cooking blanched and ground sweet almonds with blanched and ground bitter almonds, water, sugar, and/or dextrose. It contains not more than 14 percent of water nor more than 40 percent total sugars expressed as invert sugar.

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

**1555.4000 KERNEL PASTES.**

"Kernel pastes" are the plastic products obtained by cooking, with water, sugar, and/or dextrose, the blanched and ground kernels of one or more of the following: apricots, peaches,

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plums (prunes). They are free from hydrocyanic acid and contain not more than 14 percent of water nor more than 40 percent of total sugars expressed as invert sugar. A kernel paste conforms in name to the kind or kinds of kernels employed in its production.

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

## BAKING POWDER

## 1555.4100 BAKING POWDER.

Baking powder is the leavening agent produced by the mixing of an acid-reacting material and sodium bicarbonate, with or without starch or flour. It yields not less than 12 percent of available carbon dioxide. The acid-reacting materials in baking powder are tartaric acid or its acid salts, acid salts of phosphoric acid, compounds of aluminum, or any combination in substantial proportions of the foregoing.

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

## SALT

## 1555.4110 TABLE SALT, DAIRY SALT.

"Table salt," "dairy salt" is fine-grained crystalline salt containing, on a water-free basis, not more than 1.4 percent of calcium sulfate ( $\text{CaSO}_4$ ) nor more than 0.5 percent of calcium and magnesium chloride ( $\text{CaCl}_2$  and  $\text{MgCl}_2$ ) nor more than 0.1 percent of matters insoluble in water.

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

## NONALCOHOLIC BEVERAGES

## 1555.4120 SODA WATER.

"Soda water" is the class of beverages made by absorbing carbon dioxide in potable water. The amount of carbon dioxide used is not less than that which will be absorbed by the beverage at a pressure of one atmosphere and at a temperature of 60 degrees Fahrenheit. It may contain buffering agents as provided in part 1555.4130, item E. It either contains no alcohol or only such alcohol (not in excess of 0.5 percent by weight of the finished beverage) as is contributed by the flavoring ingredient used. Soda water designated by a name including any proprietary name provided for in part 1555.4140 which includes the word "cola" or a designation as a "pepper" beverage that for years has become well known as being made with kola nut extract and/or other natural caffeine-containing extracts and thus as a caffeine-containing beverage shall contain caffeine in a quantity not to exceed 0.02 percent by weight.

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

## 1555.4130 OPTIONAL INGREDIENTS.

Soda water may contain optional ingredients but if any such ingredient is a food additive or a color additive within the meaning of section 201 (s) or (t) of the Federal Food, Drug and Cosmetic Act, it is used only in conformity with the requirements established therefore. The optional ingredients that may be used in soda water in such proportions as are reasonably required to accomplish their intended effects are:

A. nutritive sweeteners consisting of the dry or liquid form of sugar, invert sugar, dextrose, corn syrup, glucose syrup, sorbitol, or any combination of two or more of these;

B. one or more of the following flavoring ingredients may be added in a carrier consisting of ethyl alcohol, glycerin, or propylene glycol:

(1) fruit juices (including concentrated fruit juices), natural flavoring derived from fruits, vegetables, bark, buds, roots, leaves, and similar plant materials; or

(2) artificial flavoring;

C. natural and artificial color additives;

D. one or more of the acidifying agents acetic acid, adipic acid, citric acid, fumaric acid, lactic acid, malic acid, phosphoric acid, or tartaric acid;

E. one or more of the buffering agents consisting of the acetate, bicarbonate, carbonate, chloride, citrate, lactate, orthophosphate, or sulfate salts of calcium, magnesium, potassium, or sodium;

F. emulsifying, stabilizing, or viscosity-producing agents;

(1) one or more of the emulsifying, stabilizing, or viscosity-producing agents brominated vegetable oils, carob bean gum (locust bean gum), glycerol ester of wood rosin, guar gum, gum acacia, gum tragacanth, hydroxylated lecithin, lecithin, methyl-cellulose, mono- and diglycerides of fat-forming fatty acids, pectin, polyglycerol esters of fatty acids, propylene glycol alginate, sodium carboxymethyl cellulose, sodium metaphosphate (sodium hexametaphosphate);

(2) when one or more of the optional ingredients in subitem (1) are used, diocetyl sodium sulfosuccinate complying with the requirements of Code of Federal Regulations, title 21, section 172.810 (Federal Food and Drug Administration Regulations) may be used in a quantity not in excess of 0.5 percent by weight of such ingredients;

G. one or more of the foaming agents ammoniated glycyrrhizin, gum ghatti, licorice, or glycyrrhiza, yucca (Joshua-tree), yucca (Mohave);

H. caffeine, in an amount not to exceed 0.02 percent by weight of the finished beverage;

I. quinine, as provided in Code of Federal Regulations, title 21, section 172.575, in an amount not to exceed 83 parts per million by weight of the finished beverage;

J. one or more of the chemical preservatives ascorbic acid, benzoic acid, BHA, BHT, calcium disodium EDTA, erythorbic acid, glucose-oxidase catalase enzyme, methyl or propyl paraben, mordi-hydroguaiaretic acid, propyl gallate, potassium or sodium benzoate, potassium or sodium bisulfite, potassium or sodium metabisulfite, potassium or sodium sorbate, sorbic acid, sulfur dioxide, or tocopherols; stannous chloride in a quantity not to exceed 11 parts per million calculated as tin (Sn), and in the case of canned soda water, with or without one or more of the other chemical preservatives listed in this item;

K. the defoaming agent dimethylpolysiloxane in an amount not to exceed ten parts per million.

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

#### 1555.4140 NAMES OF BEVERAGES.

Subpart 1. **Beverage neither flavored nor sweetened.** The name of the beverage for which a definition and standard of identity is established by parts 1555.4120 to 1555.4160, which is neither flavored nor sweetened, is soda water, club soda, or plain soda.

Subp. 2. **Beverage containing flavoring and sweetening.** The name of each beverage containing flavoring and sweetening ingredients as provided for in part 1555.4130 is “\_\_\_\_\_ soda” or “\_\_\_\_\_ soda water” or “\_\_\_\_\_ carbonated beverage,” the blank being filled in with the word or words that designate the characterizing flavor of the soda water; for example, “grape soda.”

Subp. 3. **Soda water designated by common name.** If the soda water is one generally designated by a particular common name; for example, ginger ale, root beer, or sparkling water, that name may be used in lieu of the name prescribed in subparts 1 and 2. For the purposes of parts 1555.4120 to 1555.4160, a proprietary name that is commonly used by the public as the designation of a particular kind of soda water may likewise be used in lieu of the name prescribed in subparts 1 and 2.

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

#### 1555.4150 OPTIONAL INGREDIENTS LABELING.

Soda water that contains the optional ingredient caffeine as provided for in part 1555.4130, item H, artificial flavoring, artificial coloring, or any combination of these shall be labeled to show that fact by the label statement “with \_\_\_\_\_” or “\_\_\_\_\_ added,” the blank being filled in with the word or words, “caffeine,” “artificial flavoring,” “artificial coloring,” or a combination of these words, as appropriate. If the soda water contains one or more of the optional ingredients set forth in part 1555.4130, item J, which has or is intended to have a preservative effect in the finished beverage, it shall be labeled to show that fact by one of the following statements: “\_\_\_\_\_ added as a preservative” or “preserved with \_\_\_\_\_” the blank being filled in with the common name of the preservative ingredient. If soda water contains quinine salts, the label shall bear a prominent declaration either by use of the word “quinine” in the name of the article or by separate declaration.

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

**1555.4160 PLACEMENT OF LABEL STATEMENTS.**

The label statements prescribed in part 1555.4150 for declaring the optional ingredients present shall appear on a labeling surface of the beverage in such a manner as to render the statement likely to be read by the ordinary individual under customary conditions of purchase or use of such beverage. These statements shall immediately and conspicuously precede or follow the name of the beverage, wherever such name is prominently displayed, without intervening, written, printed, or graphic matter; provided, that where such name is part of a trademark or brand, then other written, printed, or graphic matter that is also a part of such trademark or brand may intervene if the label statement required by parts 1555.4140 and 1555.4150 is so placed as to be conspicuously related to the name of the beverage.

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

**1555.4170 BACTERIAL, YEAST, AND MOLD STANDARDS FOR NONALCOHOLIC BEVERAGES.**

No canned or bottled carbonated or still beverages, carbonated, plain, or otherwise, manufactured, mixed, or compounded, shall be sold, offered, or exposed for sale or held in possession for sale in this state, the bacterial count of which at any time after manufacturing, mixing, or compounding exceeds 100 bacteria per milliliter, 20 molds per milliliter, or a mixture of yeasts and molds which exceeds 20 per milliliter collectively, standard plate count, as determined by the arithmetical averages of four consecutive tests of beverage samples taken on separate days.

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

**1555.4180 PURIFIED WATER.**

"Purified water" is a water produced by distillation, deionization, or by reverse osmosis and shall not contain more than ten parts per million of total dissolved solids and otherwise conforms to the sanitary standards for water. Purified water shall be designated by the name "purified water" and the statement "produced by \_\_\_\_\_," the blank being filled in with the appropriate descriptive words describing the water treatment process; for example, "purified water produced by distillation." These label statements shall appear on the labeling surface of the container in such a manner as to render the statement likely to be read by the ordinary individual under customary conditions of purchase or use. For the purposes of this part the use of the names "distilled water," "deionized water," or "reverse osmosis water" may be used in lieu of the labeling prescribed herein when it properly describes the character and process of the water so designated.

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

**OTHER BEVERAGES****1555.4190 PHOSPHATE BEVERAGE.**

A product labeled or sold as a phosphate beverage must contain an appreciable amount of phosphoric acid or acid phosphate, with or without other acid material commonly used in the preparation of beverages, provided that none of the acid ingredients are of such a nature as to render the product injurious to health.

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

**1555.4200 INFORMATION ON BOTTLES.**

The information required to be given on the bottles containing a beverage may appear on a label pasted on the side of the bottle, on the crown or cap, or may be blown in the glass on the side of the bottle, or appear in applied color label on the side of the bottle. All information required by law or rulings must be plainly and conspicuously set forth, in proximity to the name of the article, through any one of the above named methods of labeling.

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

**1555.4210 MISBRANDING.**

The information placed on the bottle by the manufacturer or bottler, whether in the form of a printed label or by means of lettering blown in the glass, must in each case be truly de-

scriptive of the product contained in the bottle. The interchanging of labels, whether printed on paper or on the crown cap or blown in the glass of the bottle, whereby the matter contained in the label is not truly descriptive of the product or its origin, constitutes a misbranding.

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

#### **1555.4220 CERTAIN NONALCOHOLIC BEVERAGES.**

Beverages which conform to cordials, wines, creme de menthe, etc. in all respects except as to alcoholic content, may be labeled as "nonalcoholic cordials," "nonalcoholic creme de menthe," "nonalcoholic wine," etc. as the case may be.

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

#### **1555.4230 MODIFIED FRUIT JUICE.**

Such terms as "apple juice," "grape juice," "loganberry juice," "cherry juice," etc. are applicable only to the pure juice of the fruit specified. A fruit juice which has been modified in any way or to which sugar, dextrose, corn syrup, or corn syrup solids have been added shall be plainly labeled so as to indicate such modification or addition, as for example, grape juice with added sugar.

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

### **CANNED FRUITS**

#### **1555.4240 CANNED PEACHES.**

"Canned peaches" is the food prepared from one of the optional peach ingredients specified in part 1555.4250 and one of the optional packing media specified in part 1555.4260. Such food may be seasoned with one or more of the following optional ingredients:

- A. spice;
- B. flavoring, other than artificial flavoring;
- C. a vinegar;
- D. peach pits; except in the cases of peeled whole peaches and unpeeled whole peaches, in a quantity not more than one peach pit to each eight ounces of finished canned peaches; and
- E. peach kernels, except in the cases of peeled whole peaches and unpeeled whole peaches, and except when the optional ingredient in item D is used. Such food is sealed in a container and is so processed by heat as to prevent spoilage.

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

#### **1555.4250 OPTIONAL PEACH INGREDIENTS.**

The optional peach ingredients referred to in part 1555.4240 are prepared from mature peaches of the yellow freestone, white clingstone, or white freestone varietal group and are in the following forms of units; peeled whole, unpeeled whole, peeled halves, unpeeled halves, peeled quarters, peeled slices, peeled dice, peeled mixed pieces of irregular sizes and shapes. Each such form of units prepared from each such varietal group is an optional peach ingredient. Each such ingredient, except in the case of peeled whole peaches and unpeeled whole peaches, is pitted. For the purpose of part 1555.4310, the names of such optional peach ingredients are the words "yellow cling" or "yellow clingstone," "white cling" or "white clingstone," "yellow free" or "yellow freestone" or "white free" or "white freestone," as the case may be, preceded or followed by the word or words "whole," "unpeeled whole," "halves" or "halved," "unpeeled halves," or "unpeeled halved," "quarters" or "quartered," "slices" or "sliced," "dice" or "diced," or "mixed pieces of irregular sizes and shapes," as the case may be.

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

#### **1555.4260 OPTIONAL PACKING MEDIA.**

The optional packing media referred to in part 1555.4240 are: water; peach juice; slightly sweetened water; light syrup; heavy syrup; extra heavy syrup; slightly sweetened peach juice; light peach juice syrup; heavy peach juice syrup; extra heavy peach juice syrup.

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



**1555.4270 WATER AND PEACH JUICE.**

As used in part 1555.4260 and this part the term "water" means, in addition to water, any mixture of water and peach juice; and the term "peach juice" means the fresh or canned expressed juice of mature peaches of any varietal group specified in part 1555.4250, to which no water is added, directly or indirectly.

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

**1555.4280 LIQUID INGREDIENT AND SACCHARINE INGREDIENT.**

Each of the packing media in part 1555.4260, except water and peach juices, is prepared with a liquid ingredient and a saccharine ingredient. Water is the liquid ingredient from which slightly sweetened water, light syrup, heavy syrup, and extra heavy syrup are prepared and peach juice is the liquid ingredient from which slightly sweetened peach juice, light peach juice syrup, heavy peach juice syrup, and extra heavy peach juice syrup are prepared. The saccharine ingredient from which these packing media are prepared is one of the following: sugar; any combination of sugar and dextrose in which the weight of the solids of the dextrose used is not more than one-half of the weight of the solids of the sugar used; any combination of sugar and corn syrup or glucose syrup in which the weight of the solids of the corn syrup or glucose syrup used is not more than one-third the weight of the solids of the sugar used; or any combination of sugar, dextrose, and corn syrup or glucose syrup in which twice the weight of the solids of the dextrose used added to three times the weight of the solids of the corn syrup or glucose syrup used is not more than the weight of the solids of the sugar used; except that extra heavy peach juice syrup is not prepared with any invert sugar syrup or with any corn syrup other than dried corn syrup or with any glucose syrup other than dried glucose syrup. A packing medium prepared with peach juice and any invert sugar syrup or corn syrup other than dried corn syrup or glucose syrup other than dried glucose syrup is considered to be prepared with water as the liquid ingredient.

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

**1555.4290 DENSITIES.**

The respective densities of the packing media referred to in part 1555.4260, except water and peach juice, as measured on the Brix hydrometer 15 days or more after the peaches are canned, are within the range prescribed for each in the following list:

## Brix measurement

- A. slightly sweetened water and slightly sweetened peach juice, less than 14 degrees;
- B. light syrup and light peach juice syrup, 14 degrees or more but less than 19 degrees;
- C. heavy syrup and heavy peach juice syrup, 19 degrees or more but less than 24 degrees;
- D. extra heavy syrup and extra heavy peach juice syrup, 24 degrees or more but not more than 35 degrees.

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

**1555.4300 DEFINITIONS.**

Subpart 1. **Applicability.** For the purposes of parts 1555.4240 to 1555.4320, the following terms have the meanings given them.

Subp. 2. **Sugar and invert sugar syrup.** The term "sugar" means refined sucrose or invert sugar syrup. The term "invert sugar syrup" means an aqueous solution of inverted or partly inverted, refined or partly refined or partly refined sucrose, the solids of which contain not more than 0.3 percent by weight of ash and which is colorless, odorless, and flavorless except for sweetness.

Subp. 3. **Dextrose.** The term "dextrose" means the hydrated or anhydrous, refined monosaccharide obtained from hydrolyzed starch.

Subp. 4. **Corn syrup.** The term "corn syrup" means an aqueous solution obtained by the incomplete hydrolysis of cornstarch, and includes dried corn syrup. The solids of corn syrup and of dried corn syrup contain not less than 58 percent by weight of reducing sugars.

Subp. 5. **Glucose syrup and dried glucose syrup.** The term "glucose syrup" means a clarified, concentrated, aqueous solution of the products obtained by the incomplete hydrolysis of any edible starch. The solids of glucose syrup contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose. "Dried glucose syrup" means the product obtained by drying "glucose syrup."

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

#### **1555.4310 LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

The label shall bear the name of the optional peach ingredient used, as specified in part 1555.4250 and the name whereby the optional packing medium used is designated in parts 1555.4260 to 1555.4290, preceded by "in" or "packed in." When any of the optional ingredients permitted by part 1555.4240, items A to E is used, the label shall bear the words set forth in the corresponding item of this part:

A. "spiced" or "spice added" or "with spice" or in lieu of the word "spice," the common name of the spice;

B. "flavoring added" or "with added flavoring" or, in lieu of the word "flavoring," the common name of the flavoring;

C. "seasoned with vinegar" or "seasoned with \_\_\_\_\_ vinegar," the blank being filled in with the word showing the kind of vinegar used;

D. "seasoned with peach pits; or

E. "seasoned with peach kernels."

When two or more of the optional ingredients specified in part 1555.4240 are used, such words may be combined, as for example, "seasoned with cider, vinegar, cloves, cinnamon oil, and peach kernels."

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

#### **1555.4320 PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

Wherever the name "peaches" appears on the label so conspicuously as to be easily seen under the customary conditions of purchase, the words specified in parts 1555.4240 to this part, showing the optional ingredients used, shall immediately and conspicuously precede or follow such name without intervening written, printed, or graphic matter, except that the specific varietal name of the peaches may so intervene.

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

#### **1555.4330 STANDARD OF QUALITY FOR CANNED PEACHES.**

The standard of quality for canned peaches is as follows:

A. All units tested in accordance with the method prescribed in part 1555.4340 are pierced by a weight of not more than 300 grams.

B. In the cases of halves and quarters, the weight of each unit is not less than three-fifths ounce and three-tenths ounce, respectively.

C. In the cases of whole peaches, halves, and quarters, the weight of the largest unit in the container is not more than twice the weight of the smallest unit therein.

D. Except in the case of unpeeled peaches, there is present in the finished canned peaches not more than one square inch of peel per each one pound of net contents.

E. Not more than 20 percent of the units in the container are blemished with scab, hail injury, discoloration, or other abnormalities.

F. In the case of whole peaches, halves, quarters, and slices, all units are untrimmed, or are so trimmed as to preserve normal shape.

G. Except in the case of mixed pieces of irregular sizes and shapes, not more than five percent of the units in a container of 20 or more units and not more than one unit in a container of less than 20 units, is crushed or broken. A unit which has lost its normal shape because of ripeness and which bears no mark of crushing shall not be considered to be crushed or broken.

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

**1555.4340 METHOD FOR TESTING.**

Canned peaches shall be tested by the following method to determine whether or not they meet the requirements of part 1555.4330, item A:

So trim a test piece from the unit as to fit, with peel surface up, into a supporting receptacle. If the unit is of different firmness in different parts of its peel surface, trim the piece from the firmest part. If the piece is unpeeled, remove the peel.

The top of the receptacle is circular in shape, of 1-1/8 inches inside diameter, with vertical sides; or rectangular in shape, three-fourths inch by one inch inside measurements, with ends vertical and sides sloping downward and joining at the center at a vertical depth of three-fourths inch. Use the circular receptacle for testing units of such size that a test piece can be trimmed therefrom to fit it. Use the rectangular receptacle for testing other units. Test no unit from which a test piece with rectangular peel surface at least one-half inch by one inch cannot be trimmed.

Test the piece by means of a round metal rod 5/32 inch in diameter. To the upper end of the rod is affixed a device to which weight can be added. The rod is held vertically by a support through which it can freely move upward or downward. The lower end of the rod is a plane surface to which the vertical axis of the rod is perpendicular. Adjust the combined weight of the rod and device to 100 grams. Set the receptacle so that the surface of the test piece is held horizontally. Lower the end of the rod to the approximate center of such surface, and add weight to the device at a uniform continuous rate of 12 grams per second until the rod pierces the test piece. Weigh the rod and weighted device.

Test all units in containers of 50 units or less, except those units too small for testing or too soft for trimming.

Test at least 50 units, taken at random, in containers of more than 50 units; but if less than 50 units are of sufficient size and firmness for testing, test those which are of sufficient size and firmness.

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

**1555.4345 LABEL STATEMENT OF SUBSTANDARD QUALITY.**

If the quality of canned peaches falls below the standard prescribed in part 1555.4330, the label shall bear the general statement of substandard quality specified in part 1550.0920, in the manner and form therein specified; but in lieu of such general statement of substandard quality, the label may bear the alternative statement "below standard in quality \_\_\_\_\_" the blank to be filled in with the words specified after the corresponding item of part 1555.4330 which such canned peaches fail to meet, as follows:

- A. "not tender";
- B. "small halves" or "small quarters," as the case may be;
- C. "mixed sizes";
- D. "not well peeled";
- E. "blemished";
- F. "unevenly trimmed"; and
- G. "partly crushed or broken."

Such alternative statement shall immediately and conspicuously precede or follow, without intervening written, printed, or graphic matter, the name "peaches" and any words and statements required or authorized to appear with such name by part 1555.4250.

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

**1555.4350 STANDARD OF FILL OF CONTAINER FOR CANNED PEACHES.**

The standard of fill of container for canned peaches is the maximum quantity of the optional peach ingredient which can be sealed in the container and processed by heat to prevent spoilage, without crushing or breaking such ingredients.

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

**1555.4360 LABEL STATEMENT OF SUBSTANDARD FILL.**

If canned peaches fall below the standard of fill of container prescribed in part 1555.4350, the label shall bear the general statement of substandard fill specified in part 1550.0920, in the manner and form therein specified.

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

**1555.4370 CANNED PEACHES WITH RUM.**

Canned peaches with rum conform to the definitions and standard of identity and are subject to the requirements for label statement of optional ingredients, prescribed for canned peaches by parts 1555.4240 to 1555.4320, except that they contain added rum in such amount that its alcohol content is more than three percent but less than five percent by weight.

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

**1555.4380 CANNED APRICOTS.**

"Canned apricots" is the food prepared from one of the optional apricot ingredients specified in part 1555.4390 and one of the optional packing media specified in part 1555.4400. Such food may be seasoned with one or more of the following optional ingredients:

- A. spice;
- B. flavoring, other than artificial flavoring;
- C. a vinegar;
- D. apricot pits, except in the cases of unpeeled whole apricots and peeled whole apricots, in a quantity not more than one apricot pit to each eight ounces of unfinished canned apricots; and

E. apricot kernels, except in the cases of unpeeled whole apricots and peeled whole apricots and except when the optional ingredient in item D is used. Such food is sealed in a container and so processed by heat as to prevent spoilage.

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

**1555.4390 OPTIONAL APRICOT INGREDIENTS.**

The optional apricot ingredients referred to in part 1555.4380 are prepared from mature apricots and are in the following forms of units: unpeeled whole, peeled whole, unpeeled halves, peeled halves, unpeeled quarters, peeled quarters, unpeeled slices, peeled slices, unpeeled mixed pieces of irregular sizes and shapes, peeled mixed pieces of irregular sizes and shapes. Each such form of units is an optional apricot ingredient. Each such ingredient, except in the cases of unpeeled whole apricots and peeled whole apricots, is pitted. For the purposes of part 1555.4460, the names of such optional apricot ingredients are "whole," "halves" or "halved," "quarters" or "quartered," "slices" or "sliced," "mixed pieces of irregular sizes and shapes," as the case may be, preceded or followed by "unpeeled" or "peeled," as the case may be.

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

**1555.4400 OPTIONAL PACKING MEDIA.**

The optional packing media referred to in part 1555.4380 are: water; apricot juice; slightly sweetened water; light syrup; heavy syrup; extra heavy syrup; slightly sweetened apricot juice; light apricot juice syrup; heavy apricot juice syrup; and extra heavy apricot juice syrup.

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

**1555.4410 WATER AND APRICOT JUICE.**

As used in part 1555.4400 and this part the term "water" means, in addition to water, any mixture of water and apricot juice; and the term "apricot juice" means the fresh or canned expressed juice of mature apricots to which no water is added, directly or indirectly.

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

**1555.4420 LIQUID INGREDIENT AND SACCHARINE INGREDIENT.**

Each of the packing media in part 1555.4440, except water and apricot juice, is prepared with a liquid ingredient and a saccharine ingredient. Water is the liquid ingredient from

which slightly sweetened water, light syrup, heavy syrup, and extra heavy syrup are prepared, and apricot juice is the liquid ingredient from which slightly sweetened apricot juice, light apricot juice syrup, heavy apricot juice syrup, and extra heavy apricot juice syrup are prepared. The saccharine ingredient from which all the packing media except water and apricot juice are prepared is one of the following: sugar; any combination of sugar and dextrose in which the weight of the solids of the dextrose used is not more than one-half the weight of the solids of the sugar used; any combination of sugar and corn syrup or glucose syrup in which the weight of the solids of the corn syrup or glucose syrup used is not more than one-third the weight of the solids of the sugar used; or any combination of sugar, dextrose, and corn syrup or glucose syrup in which twice the weight of the solids of the dextrose used added to three times the weight of the solids of the corn syrup or glucose syrup used is not more than the weight of the solids of the sugar used; except that slightly sweetened apricot juice, light apricot juice syrup, heavy apricot juice syrup, and extra heavy apricot juice syrup are not prepared with any invert sugar syrup or with any corn syrup other than dried corn syrup or with any glucose syrup other than dried glucose syrup. A packing medium prepared with apricot juice and any invert sugar syrup or corn syrup other than dried corn syrup or glucose syrup other than dried glucose syrup is considered to be prepared with water as the liquid ingredient.

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

#### 1555.4440 DENSITIES.

The respective densities of the packing media described in part 1555.4400, as measured on the Brix hydrometer 15 days or more after the apricots are canned, are within the range prescribed for each in the following list:

##### Brix measurement

- A. slightly sweetened water and slightly sweetened apricot juice, less than 16 degrees;
- B. light syrup and light apricot juice syrup, 16 degrees or more but less than 21 degrees;
- C. heavy syrup and heavy apricot juice syrup, 21 degrees or more but less than 25 degrees; and
- D. extra heavy syrup and extra heavy apricot juice syrup, 25 degrees or more but not more than 40 degrees.

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

#### 1555.4450 DEFINITIONS.

Subpart 1. **Applicability.** For the purposes of parts 1555.4380 to 1555.4470:

Subp. 2. **Sugar and invert sugar syrup.** The term "sugar" means refined sucrose or invert sugar syrup. The term "invert sugar syrup" means an aqueous solution of inverted or partly inverted refined or partly refined sucrose, the solids of which contain not more than 0.3 percent by weight of ash, and which is colorless, odorless, and flavorless except for sweetness.

Subp. 3. **Dextrose.** The term "dextrose" means the hydrated or anhydrous, refined monosaccharide obtained from hydrolyzed starch.

Subp. 4. **Corn syrup.** The term "corn syrup" means an aqueous solution obtained by the incomplete hydrolysis of cornstarch and includes dried corn syrup; the solids of corn syrup and of dried corn syrup contain not less than 58 percent by weight of reducing sugars.

Subp. 5. **Glucose syrup and dried glucose syrup.** The term "glucose syrup" means a clarified, concentrated, aqueous solution of the products obtained by the incomplete hydrolysis of any edible starch. The solids of glucose syrup contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose. "Dried glucose syrup" means the product obtained by drying "glucose syrup."

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

#### 1555.4460 LABEL STATEMENT OF OPTIONAL INGREDIENTS.

The label shall bear the name of the optional apricot ingredient used, as specified in part 1555.4390 and the same whereby the optional packing medium used is designated in parts

1555.4400 to 1555.4440, preceded by "in" or "packed in." When any optional ingredient permitted by part 1555.4380 is used, the labels shall bear the words set forth in the corresponding item of this part:

A. "spiced" or "spice added" or "with added spice" or, in lieu of the word "spice," the common name of the spice;

B. "flavoring added" or "with added flavoring" or, in lieu of the word "flavoring," the common name of the flavoring;

C. "seasoned with vinegar" or "seasoned with \_\_\_\_\_ vinegar," the blank being filled in with the word showing the kind of vinegar used;

D. "seasoned with apricot pits";

E. "seasoned with apricot kernels."

When two or more of the optional ingredients specified in part 1555.4380 are used, such words may be combined as for example, "seasoned with cider vinegar, cloves, cinnamon oil, and apricot kernels."

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

#### 1555.4470 PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.

Wherever the name "apricots" appears on the label so conspicuously as to be easily seen under the customary conditions of purchase, the words specified in parts 1555.4380 to this part, showing the optional ingredients used, shall immediately and conspicuously precede or follow such name without intervening written, printed or graphic matter, except that the specific varietal name of the apricots may so intervene.

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

#### 1555.4480 STANDARD OF QUALITY FOR CANNED APRICOTS.

The standard of quality for canned apricots is as follows:

A. All units tested in accordance with the method prescribed in part 1555.4490 are pierced by a weight of not more than 300 grams;

B. In the cases of halves and quarters, the weight of each unit is not less than two-fifths ounce and one-fifth ounce, respectively;

C. In the cases of whole apricots, halves and quarters, the weight of the largest unit in the container is not more than twice the weight of the smallest unit therein;

D. Not more than 20 percent of the units in the container are blemished with scab, hail injury, discoloration, or other abnormalities;

E. In the cases of whole apricots, halves and quarters, all units are untrimmed or are so trimmed as to preserve normal shape; and

F. Except in the case of mixed pieces of irregular sizes and shapes, not more than five percent of the units in a container of 20 or more units and not more than one unit in a container of less than 20 units, is crushed or broken. A unit which has lost its normal shape because of ripeness and which bears no mark of crushing shall not be considered to be crushed or broken.

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

#### 1555.4490 METHOD FOR TESTING.

Canned apricots shall be tested by the following method to determine whether or not they meet the requirements of part 1555.4480, item A.

So trim a test piece from the unit as to fit, with peel surface up, into a supporting receptacle. If the unit is of different firmness in different parts of its peel surface, trim the piece from the firmest part. If the piece is unpeeled, remove the peel.

The top of the receptacle is circular in shape, of 1-1/8 inches inside diameter, with vertical sides; or rectangular in shape, three-fourths inch by one inch inside measurements, with ends vertical and sides sloping downward and joining at the center at a vertical depth of three-fourths inch. Use the circular receptacle for testing units of such size that a test piece can be trimmed therefrom to fit it. Use the rectangular receptacle for testing other units. Test

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no unit from which a test piece with rectangular peel surface at least one-half inch by one inch cannot be trimmed.

Test the piece by means of a round metal rod 3/16 inch in diameter. To the upper end of the rod is affixed a device to which weight can be added. The rod is held vertically by a support through which it can freely move upward or downward. The lower end of the rod is a plane surface to which the vertical axis of the rod is perpendicular. Adjust the combined weight of the rod and device to 100 grams. Set the receptacle so that the surface of the test piece is held horizontally. Lower the end of the rod to the approximate center of such surface and add weight to the device at a uniform, continuous rate of 12 grams per second until the rod pierces the test piece. Weigh the rod and weighted device.

Test all units in containers of 50 units or less, except those units too small for testing or too soft for trimming.

Test at least 50 units, taken at random, in containers of more than 50 units; but if less than 50 units are of sufficient size and firmness for testing, test those which are of sufficient size and firmness.

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

**1555.4500 LABEL STATEMENT OF SUBSTANDARD QUALITY.**

If the quality of canned apricots falls below the standard prescribed in part 1555.4480, the label shall bear the general statement of substandard quality specified in part 1550.0920, in the manner and form therein specified; but in lieu of such general statement of substandard quality, the label may bear the alternative statement "below standard in quality \_\_\_\_\_," the blank to be filled in with the words specified after the corresponding item of part 1555.4480 which such canned apricots fail to meet, as follows:

- A. "not tender";
- B. "small halves" or "small quarters," as the case may be;
- C. "mixed sizes";
- D. "blemished";
- E. "unevenly trimmed"; and
- F. "partly crushed or broken."

Such alternative statement shall immediately and conspicuously precede or follow, without intervening written, printed, or graphic matter, the name "apricots" and any words and statements required or authorized to appear with such name by part 1555.4390.

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

**1555.4510 STANDARD FILL OF CONTAINER FOR CANNED APRICOTS.**

The standard fill of container for canned apricots is the maximum quantity of the optional apricot ingredient which can be sealed in the container and processed by heat to prevent spoilage, without crushing or breaking such ingredient.

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

**1555.4520 LABEL STATEMENT OF SUBSTANDARD FILL.**

If canned apricots fall below the standard of fill of container prescribed in part 1555.4510, the label shall bear the general statement of substandard fill specified in part 1550.0920 in the manner and form therein specified.

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

**1555.4530 CANNED APRICOTS WITH RUM.**

Canned apricots with rum conform to the definition and standard of identity and are subject to the requirements for label statement of optional ingredients prescribed for canned apricots by parts 1555.4380 to 1555.4470, except that they contain added rum in an amount that alcohol content is more than three percent but less than five percent by weight.

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

**1555.4540 CANNED PEARS.**

"Canned pears" is the food prepared from one of the optional pear ingredients specified in part 1555.4550 and one of the optional packing media specified in part 1555.4560. Such

food may be seasoned with one or more of the following optional ingredients: spice; flavoring, other than artificial flavoring; and vinegar. Such food is sealed in a container and so processed by heat as to prevent spoilage.

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

**1555.4550 OPTIONAL PEAR INGREDIENTS.**

The optional pear ingredients referred to in part 1555.4540 are prepared from mature pears and are in the following forms of units: peeled whole, unpeeled whole, peeled halves, unpeeled halves, peeled quarters, peeled slices, peeled dice, peeled mixed pieces of irregular sizes and shapes. Each such form of units is an optional pear ingredient. Each such ingredient, except in the cases of peeled whole pears and unpeeled whole pears, is cored. For the purposes of part 1555.4610, the respective names of such optional pear ingredients are "whole," "halved" or "halves," "quarters" or "quartered," "slices" or "sliced," "dice" or "diced," "mixed pieces of irregular sizes and shapes," preceded or followed in case the units are whole or halves and are unpeeled, by the word "unpeeled."

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

**1555.4560 OPTIONAL PACKING MEDIA.**

The optional packing media referred to in part 1555.4540 are: water; pear juice; slightly sweetened water; light syrup; heavy syrup; extra heavy syrup; slightly sweetened pear juice; light pear juice syrup; heavy pear juice syrup; extra heavy pear juice syrup.

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

**1555.4570 WATER AND PEAR JUICE.**

As used in part 1555.4560 and this part the term "water" means, in addition to water, any mixture of water and pear juice; and the term "pear juice" means the fresh or canned expressed juice of mature pears to which no water is added, directly or indirectly.

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

**1555.4580 LIQUID INGREDIENT AND SACCHARINE INGREDIENT.**

Each of the packing media in part 1555.4560 except water and pear juice is prepared with a liquid ingredient and a saccharine ingredient. Water is the liquid ingredient from which slightly sweetened water, light syrup, heavy syrup, and extra heavy syrup are prepared, and pear juice is the liquid ingredient from which slightly sweetened pear juice, light pear juice syrup, heavy pear juice syrup, and extra heavy pear juice syrup are prepared. The saccharine ingredient from which all the packing media except water and pear juice are prepared is one of the following: sugar; any combination of sugar and dextrose in which the weight of the solids of the dextrose used is not more than one-half the weight of the solids of the sugar used; any combination of sugar and corn syrup or glucose syrup in which the weight of the solids of the corn syrup or glucose syrup used is not more than one-third the weight of the solids of the sugar used; or any combination of sugar, dextrose, and corn syrup or glucose syrup in which twice the weight of the solids of the dextrose used added to three times the weight of the solids of the corn syrup or glucose syrup used is not more than the weight of the solids of the sugar used; except that slightly sweetened pear juice, light pear juice syrup, heavy pear juice syrup, and extra heavy pear juice syrup are not prepared with any invert sugar syrup or with any corn syrup other than dried corn syrup or with any glucose syrup other than dried glucose syrup. A packing medium prepared with pear juice and any invert sugar syrup or corn syrup other than dried corn syrup or glucose syrup other than dried glucose syrup is considered to be prepared with water as the liquid ingredient.

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

**1555.4590 DENSITIES.**

The respective densities of all packing media referred to in part 1555.4560, except water and pear juice, as measured on the Brix hydrometer 15 days or more after the pears are canned, are within the range prescribed for each in the following list:

Brix measurement

A. slightly sweetened water and slightly sweetened pear juice, less than 14 degrees;



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B. light syrup and light pear juice syrup, 14 degrees or more but less than 18 degrees;

C. heavy syrup and heavy pear juice syrup, 18 degrees or more but less than 22 degrees;

D. extra heavy syrup and extra heavy pear juice syrup, 22 degrees or more but not more than 35 degrees.

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

## 1555.4600 DEFINITIONS.

Subpart 1. **Applicability.** For the purposes of parts 1555.4540 to 1555.4620:

Subp. 2. **Sugar and invert sugar syrup.** The term "sugar" means refined sucrose or invert sugar syrup. The term "invert sugar syrup" means an aqueous solution of inverted or partly inverted, refined or partly refined sucrose the solids of which contain not more than 0.3 percent by weight of ash and which is colorless, odorless, and flavorless except for sweetness.

Subp. 3. **Dextrose.** The term "dextrose" means the hydrated or anhydrous refined monosaccharide obtained from hydrolyzed starch.

Subp. 4. **Corn syrup.** The term "corn syrup" means an aqueous solution obtained by the incomplete hydrolysis of cornstarch and includes dried corn syrup; the solids of corn syrup and of dried corn syrup contain not less than 58 percent by weight of reducing sugars.

Subp. 5. **Glucose syrup and dried glucose syrup.** The term "glucose syrup" means a clarified, concentrated, aqueous solution of the products obtained by the incomplete hydrolysis of any edible starch. The solids of glucose syrup contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose. "Dried glucose syrup" means the product obtained by drying "glucose syrup."

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

## 1555.4610 LABEL STATEMENT OF OPTIONAL INGREDIENTS.

The label shall bear the name of the optional pear ingredient used, as specified in part 1555.4550 and the name whereby the optional packing medium used is designated in parts 1555.4560 to 1555.4590, preceded by "in" or "packed in." When any optional ingredient permitted by part 1555.4540 is used, the label shall bear the words set forth in the corresponding item of this part:

A. "spiced" or "spice added" or "with added spice" or, in lieu of the word "spice," the common name of the spice;

B. "flavoring added" or "with added flavoring" or, in lieu of the word "flavoring," the common name of the flavoring;

C. "seasoned with vinegar" or "seasoned with \_\_\_\_\_ vinegar," the blank being filled in with the word showing the kind of vinegar used. When two or all of the optional ingredients specified in part 1555.4540 are used, such words may be combined, as for example, "seasoned with cider vinegar, cloves, and cinnamon oil."

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

## 1555.4620 PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.

Wherever the name "pears" appears on the label so conspicuously as to be easily seen under the customary conditions of purchase, the words specified in parts 1555.4540 to 1555.4620, showing the optional ingredients used, shall immediately and conspicuously precede or follow such name without intervening written, printed, or graphic matter, except that the specific varietal name of the pears may so intervene.

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

## 1555.4630 STANDARD OF QUALITY FOR CANNED PEARS.

The standard of quality for canned pears is as follows:

A. all units tested in accordance with the method prescribed in part 1555.4640 are pierced by a weight of not more than 300 grams;

B. in the cases of halves and quarters, the weight of each unit is not less than three-fifths ounce and three-tenths ounces, respectively;

C. in the cases of whole pears, halves and quarters, the weight of the largest unit in the container is not more than twice the weight of the smallest unit therein;

D. except in the case of unpeeled pears, there is present in the finished canned pears not more than one square inch of peel per each one pound of net contents;

E. not more than 20 percent of the units in the container are blemished with scab, hail injury, discoloration, or other abnormalities;

F. in the cases of whole pears, halves and quarters, all units are untrimmed or are so trimmed as to preserve normal shape; and

G. except in the case of mixed pieces of irregular sizes and shapes, not more than ten percent of the units in a container of ten or more units and not more than one unit in a container of less than ten units, is crushed or broken.

A unit which has lost its normal shape because of ripeness and which bears no mark of crushing shall not be considered to be crushed or broken.

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

#### **1555.4640 METHOD FOR TESTING.**

Canned pears shall be tested by the following method to determine whether or not they meet the requirements of part 1555.4630, item A.

So trim a test piece from the unit as to fit, with peel surface up, into a supporting receptacle. If the unit is of different firmness in different parts of its peel surface, trim the piece from the firmest part. If the piece is unpeeled remove the peel.

The top of the receptacle is circular in shape of 1-1/8 inches inside diameter, with vertical sides; or rectangular in shape, three-fourths inch by one inch inside measurements, with ends vertical and sides sloping downward and joining at the center at a vertical depth of three-fourths inch. Use the circular receptacle for testing units of such size that a test piece can be trimmed therefrom to fit it. Use the rectangular receptacle for testing other units. Test no unit from which a test piece with rectangular peel surface at least one-half inch by one inch cannot be trimmed.

Test the piece by means of a round metal rod 5/32 inch in diameter. To the upper end of the rod is affixed a device to which weight can be added. The rod is held vertically by a support through which it can freely move upward or downward. The lower end of the rod is a plane surface to which the vertical axis of the rod is perpendicular. Adjust the combined weight of the rod and device to 100 grams. Set the receptacle so that the surface of the test piece is held horizontally. Lower the end of the rod to the approximate center of such surface and add weight to the device at a uniform, continuous rate of 12 grams per second until the rod pierces the test piece. Weigh the rod and weighted device.

Test all units in containers of 50 units or less, except those units too small for testing or too soft for trimming.

Test at least 50 units, taken at random, in containers of more than 50 units; but if less than 50 units are of sufficient size and firmness for testing, test those which are of sufficient size and firmness.

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

#### **1555.4650 LABEL STATEMENT OF SUBSTANDARD QUALITY.**

If the quality of canned pears falls below the standard prescribed in part 1555.4630, the label shall bear the general statement of substandard quality specified in part 1550.0920, in the manner and form therein specified, but in lieu of such general statement of substandard quality, the label may bear the alternative statement "below standard in quality \_\_\_\_\_," the blank to be filled in with the words specified in the item of this part corresponding to the item of part 1555.4630 which such canned pears fail to meet, as follows:

A. "not tender;"

B. "small halves" or "small quarters," as the case may be;

C. "mixed sizes";

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- D. "not well peeled";
- E. "blemished";
- F. "unevenly trimmed"; and
- G. "partly crushed or broken."

Such alternative statement shall immediately and conspicuously precede or follow, without intervening written, printed, or graphic matter, the name "pears" and any words and statements required or authorized to appear with such names by parts 1555.4540 to 1555.4620.

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

**1555.4660 STANDARD FILL OF CONTAINER FOR CANNED PEARS.**

The standard of fill of container for canned pears is the maximum quantity of the optional pear ingredient which can be sealed in the container and processed by heat to prevent spoilage, without crushing or breaking such ingredient.

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

**1555.4670 LABEL STATEMENT OF SUBSTANDARD FILL.**

If canned pears fall below the standard of fill of container prescribed in part 1555.4660, the label shall bear the general statement of substandard fill specified in part 1550.0920, in the manner and form therein specified.

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

**1555.4680 CANNED PEARS WITH RUM.**

Canned pears with rum conform to the definition and standard of identity and are subject to the requirements for label statement of optional ingredients prescribed for canned pears by parts 1555.4540 to 1555.4620, except that they contain added rum in such amount that its alcohol content is more than three percent but less than five percent by weight.

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

**1555.4690 CANNED CHERRIES.**

"Canned cherries" is the food prepared from one of the optional cherry ingredients specified in part 1555.4700 and one of the optional packing media specified in parts 1555.4710 to 1555.4740. Such food may be seasoned with one or more of the following optional ingredients:

- A. spice;
- B. flavoring, other than artificial flavoring; and
- C. vinegar.

Such food is sealed in a container and so processed by heat as to prevent spoilage.

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

**1555.4700 OPTIONAL CHERRY INGREDIENTS.**

The optional cherry ingredients referred to in part 1555.4690 are prepared from mature cherries of the red sour, light sweet, or dark sweet varietal group. Pitted cherries of each such group and unpitted cherries of each such group are an optional cherry ingredient. For the purposes of part 1555.4760, the names of such optional cherry ingredients are the words "red sour" or "red tart," "light sweet" or "dark sweet," as the case may be, preceded or followed by the word "pitted" in case such ingredients are pitted.

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

**1555.4710 OPTIONAL PACKING MEDIA.**

The optional packing media referred to in part 1555.4690 are:

- A. water;
- B. cherry juice;
- C. slightly sweetened water;
- D. light syrup;

- E. heavy syrup;
- F. extra heavy syrup;
- G. slightly sweetened cherry juice;
- H. light cherry juice syrup;
- I. heavy cherry juice syrup; and
- J. extra heavy cherry juice syrup.

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

#### **1555.4720 WATER AND CHERRY JUICE.**

As used in part 1555.4710 and this part the term "water" means, in addition to water, any mixture of water and cherry juice; and the term "cherry juice" means the fresh or canned expressed juice of mature cherries, of any varietal group specified in part 1555.4700, to which no water is added directly or indirectly.

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

#### **1555.4730 LIQUID INGREDIENT AND SACCHARINE INGREDIENT.**

Each of the packing media in part 1555.4710, items C to J is prepared with a liquid ingredient and a saccharine ingredient. Water is the liquid ingredient from which slightly sweetened water, light syrup, heavy syrup, and extra heavy syrup are prepared and cherry juice is the liquid ingredient from which slightly sweetened cherry juice, light cherry juice syrup, heavy cherry juice syrup, and extra heavy cherry juice syrup are prepared. The saccharine ingredient from which all the packing media except water and cherry juice are prepared is one of the following: sugar; any combination of sugar and dextrose in which the weight of the solids of the dextrose used is not more than one-half the weight of the solids of the sugar used; any combination of sugar and corn syrup or glucose syrup in which the weight of the solids of the corn syrup or glucose syrup used is not more than one-third the weight of the solids of the sugar used; or any combination of sugar, dextrose, and corn syrup or glucose syrup in which twice the weight of the solids of the dextrose used added to three times the weight of the solids of the corn syrup or glucose syrup used is not more than the weight of the solids of the sugar used; except that slightly sweetened cherry juice, light cherry juice syrup, heavy cherry juice syrup, and extra heavy cherry juice syrup are not prepared with any invert sugar syrup or with any corn syrup other than dried corn syrup or with any glucose syrup other than dried glucose syrup. A packing medium prepared with cherry juice and any invert sugar syrup or corn syrup other than dried corn syrup or glucose syrup other than dried glucose syrup is considered to be prepared with water as the liquid ingredient.

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

#### **1555.4740 DENSITIES.**

Subpart 1. **General.** The respective densities of the packing media referred to in part 1555.4730, except water and cherry juice, as measured on the Brix hydrometer 15 days or more after the cherries are canned, are within the range prescribed for each in subparts 2 and 3.

Subp. 2. **Sweet cherries.** In case of sweet cherries:

- A. slightly sweetened water and slightly sweetened cherry juice, less than 16 degrees;
- B. light syrup and light cherry juice syrup, 16 degrees or more but less than 20 degrees;
- C. heavy syrup and heavy cherry juice syrup, 20 degrees or more but less than 25 degrees; and
- D. extra heavy syrup and extra heavy cherry juice syrup, 25 degrees or more but not more than 35 degrees.

Subp. 3. **Red sour cherries.** In case of red sour cherries:

- A. slightly sweetened water and slightly sweetened cherry juice, less than 18 degrees;
- B. light syrup and light cherry juice syrup, 18 degrees or more but less than 22 degrees;

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C. heavy syrup and heavy cherry juice syrup, 22 degrees or more but less than 28 degrees; and

D. extra heavy syrup and extra heavy cherry juice syrup, 28 degrees or more but not more than 45 degrees.

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

## 1555.4750 DEFINITIONS.

Subpart 1. **Applicability.** For the purposes of parts 1555.4690 to 1555.4770, the following definitions apply.

Subp. 2. **Sugar and invert sugar syrup.** The term "sugar" means refined sucrose or invert sugar syrup. The term "invert sugar syrup" means an aqueous solution of inverted or partly inverted, refined or partly refined sucrose, the solids of which contain not more than 0.3 percent by weight of ash and which is colorless, odorless, and flavorless except for sweetness.

Subp. 3. **Dextrose.** The term "dextrose" means the hydrated or anhydrous refined monosaccharide obtained from hydrolyzed starch.

Subp. 4. **Corn syrup.** The term "corn syrup" means an aqueous solution obtained by the incomplete hydrolysis of cornstarch and includes dried corn syrup; the solids of corn syrup and of dried corn syrup contain not less than 58 percent by weight of reducing sugars.

Subp. 5. **Glucose syrup and dried glucose syrup.** The term "glucose syrup" means a clarified, concentrated, aqueous solution of the products obtained by the incomplete hydrolysis of any edible starch. The solids of glucose syrup contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose. "Dried glucose syrup" means the product obtained by drying "glucose syrup."

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

## 1555.4760 LABEL STATEMENT OF OPTIONAL INGREDIENTS.

The label shall bear the name of the optional cherry ingredient used, as specified in part 1555.4700 and the name whereby the optional packing medium used is designated in parts 1555.4710 to 1555.4740, preceded by "in" or "packed in." When any optional ingredient permitted by part 1555.4690 is used, the label shall bear the words set forth:

A. "spiced" or "spice added" or "with added spice" or, in lieu of the word "spice," the common name of the spice;

B. "flavoring added" or "with added flavoring" or, in lieu of the word "flavoring" the common name of the flavoring; and

C. "seasoned with vinegar" or "seasoned with \_\_\_\_\_ vinegar," the blank being filled in with the word showing the kind of vinegar used. When two or all of the optional ingredients specified in part 1555.4690 are used, such words may be combined, as for example, "seasoned with cider vinegar, cloves, and cinnamon oil."

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

## 1555.4770 PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.

Wherever the name "cherries" appears on the label so conspicuously as to be easily seen under the customary conditions of purchase, the words specified in parts 1555.4690 to 1555.4770 showing the optional ingredients used, shall immediately and conspicuously precede or follow such name without intervening written, printed, or graphic matter except that the specific varietal name of the cherries may so intervene.

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

## 1555.4780 STANDARD OF QUALITY FOR CANNED CHERRIES.

The standard of quality for canned cherries is as follows:

A. In the case of pitted cherries, not more than one pit is present in each 20 ounces of canned cherries, as determined by the method prescribed in part 1555.4790.

B. In the case of unpitted cherries, the weight of each cherry in the container is not less than one-tenth ounce.

C. In the case of unpitted cherries, the weight of the largest cherry in the container is not more than twice the weight of the smallest cherry therein.

D. In the case of unpitted cherries, the total weight of pits is not more than 12 percent of the weight of drained cherries, as determined by the method prescribed in part 1555.4800.

E. Not more than 15 percent by count of the cherries in the container are blemished with scab, hail injury, discoloration, scar tissue, or other abnormality. A unit showing skin discoloration having an aggregate area not exceeding that of a circle  $\frac{3}{16}$  inch in diameter and not extending into the fruit tissue shall not be considered as blemished.

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

#### **1555.4790 TESTS FOR STANDARDS OF QUALITY FOR PITTED CANNED CHERRIES.**

Pitted canned cherries shall be tested by the following method to determine whether or not they comply with the requirements of part 1555.4780, item A: take at random such number of containers as to have a total quantity of contents of at least 24 pounds. Open the containers and weigh the contents.

Count the pits and pieces of pit shell in such total quantity. Count a piece of pit shell equal to or smaller than one-half pit shell as one-half pit and a piece of pit shell larger than one-half pit shell as one pit; but when two or more pieces of pit shell are within or attached to a single cherry, count such pieces as one-half pit if their combined size is equivalent to that of one-half pit shell or less and as one pit if their combined size is equivalent to that of more than one-half pit shell.

From the total number of pits so counted and the combined weight of the contents of all the containers, calculate the number of pits present in each 20 ounces of canned cherries.

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

#### **1555.4800 TESTS FOR STANDARDS OF QUALITY FOR UNPITTED CANNED CHERRIES.**

Unpitted canned cherries shall be tested by the following method to determine whether or not they comply with the requirements of part 1555.4780, item D: tilt the opened container so as to distribute the contents over the meshes of a circular sieve which has previously been weighed. The diameter of the sieve is eight inches if the quantity of the contents of the container is less than three pounds or 12 inches if such quantity is three pounds or more. The bottom of the sieve is No. 8 woven wire cloth which complies with the specification for such cloth set forth on page 3 of "Standard Specifications for Sieves," published October 25, 1938, by United States Department of Commerce, National Bureau of Standards. Without shifting the cherries, so incline the sieve as to facilitate drainage.

Two minutes from the time drainage begins, weigh the sieve and drained cherries. The weight so found, less the weight of the sieve, shall be considered to be the weight of drained cherries.

Pit the cherries and wash the pits free from adhering flesh. Drain and weigh the pits by the method prescribed above. Divide the weight of pits so found by the weight of drained cherries and multiply by 100.

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

#### **1555.4810 LABEL STATEMENT OF SUBSTANDARD QUALITY.**

If the quality of canned cherries falls below the standard prescribed in part 1555.4780, the label shall bear the general statement of substandard quality specified in part 1550.0920, in the manner and form therein specified; but in lieu of such general statement of substandard quality, the label may bear the alternative statement "below standard in quality \_\_\_\_\_," the blank to be filled in with the words specified in the item of this part corresponding to the item of part 1555.4780 which such canned cherries fail to meet, as follows:

- A. "partially pitted;"
- B. "small;"
- C. "mixed sizes;"

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D. "thin fleshed;" and

E. "blemished."

Such alternative statement shall immediately and conspicuously precede or follow, without intervening written, printed, or graphic matter, the name "cherries" and any words and statements required or authorized to appear with such name by parts 1555.4690 to 1555.4770.

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

**1555.4820 STANDARD OF FILL OF CONTAINER FOR CANNED CHERRIES.**

The standard of fill of container for canned cherries is the maximum quantity of the optional cherry ingredients which can be sealed in the container and processed by heat to prevent spoilage, without crushing such ingredient.

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

**1555.4830 LABEL STATEMENT OF SUBSTANDARD FILL.**

If canned cherries fall below the standard of fill of container prescribed in part 1555.4820, the label shall bear the general statement of substandard fill specified in part 1550.0920, in the manner and form therein specified.

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

**1555.4840 CANNED CHERRIES WITH RUM.**

Canned cherries with rum conform to the definition and standard of identity and are subject to the requirements for label statement of optional ingredients prescribed for canned cherries by parts 1555.4690 to 1555.4770 of this rule, except that these contain added rum in such amount that their alcohol content is more than three percent but less than five percent by weight.

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

**1555.4845 CANNED FRUIT COCKTAIL, CANNED COCKTAIL FRUITS, CANNED FRUITS FOR COCKTAIL.**

"Canned fruit cocktail," "canned cocktail fruits," "canned fruits for cocktail" is the food prepared from the mixture of fruit ingredients prescribed in part 1555.4850, in the forms and proportions therein prescribed and one of the optional packing media specified in part 1555.4860. It is sealed in a container and is so processed by heat as to prevent spoilage.

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

**1555.4850 FRUIT INGREDIENTS.**

The fruit ingredients referred to in part 1555.4845, the forms of each and the percent by weight of each in the mixture of drained fruit from the finished canned fruit cocktail are as follows:

A. peaches of any yellow variety, which are pitted, peeled, and diced, not less than 30 percent and not more than 50 percent;

B. pears of any variety, which are peeled, cored and diced, not less than 25 percent and not more than 45 percent;

C. whole grapes of any seedless variety, not less than six percent and not more than 20 percent;

D. pineapples of any variety, which are peeled, cored, and cut into sectors or into dice, not less than six percent and not more than 16 percent; and

E. one of the following optional cherry ingredients, each of which is stemmed, pitted, and cut into approximate halves, not less than two percent and not more than six percent:

(1) cherries of any light, sweet variety;

(2) cherries artificially colored red; or

(3) cherries artificially colored red and artificially flavored.

Each such fruit ingredient is prepared from mature fruit which is fresh or canned. Notwithstanding the preceding provisions of this paragraph, each 4-1/2 ounces avoirdupois of

the finished canned fruit cocktail and each fraction thereof greater than two ounces avoirdupois contain not less than two sectors or three dice of pineapple and not less than one approximate half of the optional cherry ingredient.

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

#### 1555.4860 OPTIONAL PACKING MEDIA.

The optional packing media referred to in part 1555.4845 are as follows:

- A. water;
- B. fruit juice;
- C. light syrup;
- D. heavy syrup;
- E. extra heavy syrup;
- F. light fruit juice syrup;
- G. heavy fruit juice syrup;
- H. extra heavy fruit juice syrup.

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

#### 1555.4870 LIQUID INGREDIENT AND SACCHARINE INGREDIENT.

Light syrup, heavy syrup, and extra heavy syrup are prepared with water as their liquid ingredient, and light fruit juice syrup, heavy fruit juice syrup, and extra heavy fruit juice syrup are prepared with fruit juice as their liquid ingredient. Except as provided in part 1555.4880, subpart 8, each of these packing media except water and fruit juice are prepared with any one of the following saccharine ingredients: sugar; any combination of sugar and dextrose in which the weight of the solids of the dextrose used is not more than one half the weight of the solids of the sugar used; any combination of sugar and corn syrup or glucose syrup in which the weight of the solids of the corn syrup or glucose syrup used is not more than one-third the weight of the solids of the sugar used; or any combination of sugar, dextrose, and corn syrup or glucose syrup in which the weight of the solids of the dextrose used multiplied by two, added to the weight of the solids of the corn syrup or the glucose syrup used multiplied by three, is not more than the weight of the solids of the sugar used. The respective densities of the packing media except water and fruit juice as measured on the Brix hydrometer 15 days or more after the fruit cocktail is canned are within the range prescribed for each in the following list:

- A. light syrup and light fruit juice syrup, 14 degrees or more but less than 18 degrees;
- B. heavy syrup and heavy fruit juice syrup, 18 degrees or more but less than 22 degrees; and
- C. extra heavy syrup and extra heavy fruit juice syrup, 22 degrees or more but not more than 35 degrees.

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

#### 1555.4880 DEFINITIONS.

Subpart 1. **Applicability.** For the purposes of parts 1555.4845 to 1555.4890, the following terms have the meanings given them.

Subp. 2. **Water.** The term "water" means, in addition to water, both the liquid drained from any fruit ingredient previously canned in water as its sole packing medium and any mixture of water and fruit juice, including the liquid drained from any fruit ingredient previously canned in such mixture.

Subp. 3. **Fruit juice.** The term "fruit juice" means the fresh or canned, expressed juice or juices of one or more of the mature fruits named in part 1555.4850 including the liquid drained from any fruit ingredient previously canned in such juice or juices as its sole packing medium, to which no water has been added directly or indirectly. Fruit juice may be strained or filtered.

Subp. 4. **Sugar; invert sugar syrup.** The term "sugar" means refined sucrose or invert sugar syrup. The term "invert sugar syrup" means an aqueous syrup of inverted or partly in-



verted, refined or partly refined sucrose, the solids of which contain not more than 0.3 percent by weight of ash and which is colorless, odorless, and flavorless except for sweetness.

Subp. 5. **Dextrose.** The term "dextrose" means the hydrated or anhydrous refined monosaccharide obtained from hydrolyzed starch.

Subp. 6. **Corn syrup.** The term "corn syrup" means an aqueous solution obtained by the incomplete hydrolysis of corn starch and includes dried corn syrup; the solids of corn syrup and dried corn syrup contain not less than 58 percent by weight of reducing sugars.

Subp. 7. **Glucose syrup and dried glucose syrup.** The term "glucose syrup" means a clarified, concentrated, aqueous solution of the products obtained by the incomplete hydrolysis of any edible starch. The solids of glucose syrup contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose. "Dried glucose syrup" means the product obtained by drying "glucose syrup."

Subp. 8. **Light syrup, heavy syrup, or extra heavy syrup.** When the optional packing medium is prepared with fruit juice and invert sugar syrup or corn syrup other than dried corn syrup or glucose syrup other than dried glucose syrup, it shall be considered to be light syrup, heavy syrup, or an extra heavy syrup, as the case may be and not a light fruit juice syrup, heavy fruit juice syrup or an extra heavy fruit juice syrup. The term "light syrup," "heavy syrup," or "extra heavy syrup" includes a syrup which conforms in all other respects to the provisions of parts 1555.4845 to 1555.4890, in the preparation of which there is used the liquid drained from any fruit ingredient previously canned in a packing medium consisting wholly of the liquid and saccharine ingredients of a light syrup, heavy syrup, or extra heavy syrup.

Subp. 9. **Light fruit juice syrup, heavy fruit juice syrup, or extra heavy fruit juice syrup.** Except as provided in subpart 8, the term "light fruit juice syrup," "heavy fruit juice syrup," or "extra heavy fruit juice syrup" includes a syrup which conforms in all other respects to the provisions of parts 1555.4845 to 1555.4890, in the preparation of which there is used the liquid drained from any fruit ingredients previously canned in a packing medium consisting wholly of the liquid and saccharine ingredients of light fruit juice syrup, heavy fruit juice syrup or extra heavy fruit juice syrup.

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

#### 1555.4890 OPTIONAL INGREDIENTS LABELING.

The optional ingredients specified in parts 1555.4850, item E, subitems (2) and (3) and 1555.4860, items A to H, inclusive, are hereby designated as optional ingredients which, when used, shall be named on the label by the name whereby each is so specified. Such names shall immediately and conspicuously, without intervening written, printed, or graphic matter, precede or follow the name "fruit cocktail," "cocktail fruits," or "fruits for cocktail" wherever it appears on the label so conspicuously as to be easily seen under customary conditions of purchase.

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

#### 1555.4900 STANDARD OF QUALITY FOR CANNED FRUIT COCKTAIL.

The standard of quality for canned fruit cocktail is as follows:

A. Not more than 20 percent by weight of the units in the container of peach or pear or of pineapple if the units thereof are diced, are more than three-fourths inch in greatest edge dimensions or pass through the meshes of a sieve designated as 5/16 inch in Table I of "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the National Bureau of Standards, United States Department of Commerce. If the units of pineapple are in the form of sectors, not more than 20 percent of such sectors in the container fail to conform to the following dimensions: The length of the outside arc is not more than three-fourths inch but is more than three-eighths inch; the thickness is not more than one-half inch but is more than 5/16 inch; the length (measured along the radius from the inside arc to the outside arc) is not more than 1-1/4 inches but is more than three-fourths inch.

B. Not more than ten percent of the grapes in a container containing ten grapes or more and not more than one grape in a container containing less than ten grapes, is cracked to the extent of being severed into two parts or is crushed to the extent that their normal shape is destroyed.

C. Not more than ten percent of the grapes in a container containing ten grapes or more and not more than one grape in a container containing less than ten grapes, has the cap stem attached.

D. There is present in the finished canned fruit cocktail not more than one square inch of pear peel per each one pound of drained weight of units of pear plus the weight of a proportion of the packing medium which is the same proportion as the drained weight of the units of pear, bears to the drained weight of the entire contents of the can. Such drained weights shall be determined by the method prescribed in part 1555.4920.

E. There is present in the finished canned fruit cocktail not more than one square inch of peach peel per each one pound of drained weight of units of peach plus the weight of a proportion of the packing medium which is the same proportion as the drained weight of units of peach, bears to the drained weight of the entire contents of the can. Such drained weights shall be determined by the method prescribed in part 1555.4920.

F. Not more than 15 percent of the units of cherry ingredient and not more than 20 percent of the units of peach, pear, or grape, in the container is blemished with scab, hail injury, scar tissue or other abnormality.

G. If the cherry ingredient is artificially colored, the color of not more than 15 percent of the units thereof in a container containing more than six units and of not more than one unit in a container containing six units or less, is other than evenly distributed in the unit or other than uniform with the color of the other units of the cherry ingredient.

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

#### **1555.4910 LABEL STATEMENT OF SUBSTANDARD QUALITY.**

If the quality of canned fruit cocktail falls below the standard prescribed in part 1555.4900, the label shall bear the general statement of substandard quality specified in part 1550.0920, in the manner and form therein specified.

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

#### **1555.4920 STANDARD OF FILL OF CONTAINER FOR CANNED FRUIT COCKTAIL.**

The standard of fill of container for canned fruit cocktail is a fill such that the total weight of drained fruit is not less than 65 percent of the water capacity of the container, as determined by the general method for water capacity of containers prescribed in parts 1550.0900 to 1550.0910. Such total weight of drained fruit is determined by the following method: Tilt the opened container so as to distribute the contents evenly over the meshes of a circular sieve which has been previously weighed. The diameter of the sieve is eight inches if the quantity of contents of the container is less than three pounds and 12 inches if such quantity is three pounds or more. The bottom of the sieve is woven wire cloth which complies with the specifications for such cloth set forth under "2380 Micron (No. 8)" in Table I of "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the United States Department of Commerce, National Bureau of Standards. Without shifting the material on the sieve, so incline the sieve as to facilitate drainage. Two minutes from the time drainage begins, weigh the sieve and drained fruit. The weight so found, less the weight of the sieve, shall be considered to be the total weight of drained fruit.

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

#### **1555.4930 LABEL STATEMENT OF SUBSTANDARD FILL.**

If canned fruit cocktail falls below the standard of fill of container prescribed in part 1555.4920, the label shall bear the general statement of substandard fill specified in part 1550.0920, in the manner and form therein prescribed.

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

#### **1555.4940 CANNED PINEAPPLE.**

"Canned pineapple" is the food prepared from one of the following optional forms of units obtained from peeled, cored, mature fruits of the pineapple plant:

A. Sliced, slices; consisting of whole circular slices cut across the axis of the peeled, cored fruit cylinders.

B. Half sliced, half slices; consisting of semicircular halves of slices; a unit that is approximately one-half slice is considered to be a half slice.

C. Broken sliced, broken slices; consisting of arc-shaped portions cut or broken from slices, which portions are not uniform in size or shape.

D. Tidbits; consisting of sectors cut from slices. Tidbits are reasonably uniform in size and shape; they are predominantly from 5/16 inch to one-half inch thick and, except for an occasional unit, each sector is not larger than one-sixth of the slice from which cut.

E. Chunks; consisting of short, thick pieces cut from thick slices or from peeled, cored fruit; chunks may or may not be symmetrical or uniform in shape and size. Predominantly, the units have a thickness greater than one-half inch, a width greater than 9/16 inch, but a longest dimension (along any edge) not greater than 1-1/2 inches.

F. Cubes, diced; consisting of cube-shaped pieces cut from slices or from peeled, cored fruit; except for an occasional unit, the longest dimension (along any edge) of each unit is not greater than 9/16 inch.

G. Spears, fingers; consisting of long, slender pieces cut parallel to the core axis from peeled, cored fruit cylinders; the units are not larger than one-sixth of the cylinder from which they are cut and they are not less than 2-1/2 inches long.

H. Crushed, consisting of shredded or finely cut pieces of fruit flesh.

The optional forms of units specified by items A to G are canned with one of the optional packing media specified in part 1555.4950. The optional form of unit specified by this item may be canned with one of the optional packing media specified in part 1555.4950, except water, or with one of the optional sweetening ingredients specified in part 1555.4960.

The food is sealed in containers and is so processed by heat, either before or after sealing, as to prevent spoilage.

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

#### **1555.4950 OPTIONAL PACKING MEDIA.**

The optional packing media referred to in part 1555.4940 are: water; pineapple juice; clarified juice; light syrup; heavy syrup; extra heavy syrup.

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

#### **1555.4955 PINEAPPLE JUICE; CLARIFIED JUICE.**

For the purposes of parts 1555.4940 to 1555.5000: pineapple juice conforms to the definition and standard of identity for unsweetened pineapple juice as specified in parts 1555.5060 to 1555.5100 except that it is not required to be separately sealed in containers and so processed by heat as to prevent spoilage. Clarified juice is the liquid collected from cutting various forms of units from pineapple fruits or the liquid expressed wholly or in part from pineapple cores, shells, or from pineapple flesh or parts thereof, which liquid is clarified and may be further refined or concentrated; but if the concentration is such that the packing medium conforms to the density range for one of the syrups hereinafter specified, such concentrated liquid is considered to be light syrup, heavy syrup or extra heavy syrup, as the case may be.

Except as the concentrated, clarified juice is considered to be a syrup packing medium as above provided, each of the packing media light syrup, heavy syrup, and extra heavy syrup consists of an optional sweetening ingredient as specified in part 1555.4960, dissolved in one or any mixture of two or more of the liquids water, pineapple juice, or clarified juice. The syrup packing media have respective densities as determined by the method specified in "Official Methods of Analysis of the Association of Official Agricultural Chemists", eighth edition, on page 533, under the heading "Solids-By Means of Spindle-Official," using the Brix hydrometer 15 days or more after the pineapple is canned, which are within the ranges specified for each in the following list:

##### Brix measurement

- A. light syrup, 14 degrees or more but less than 18 degrees;
- B. heavy syrup, 18 degrees or more but less than 22 degrees;
- C. extra heavy syrup, 22 degrees or more but not more than 35 degrees.

In the case of crushed pineapple, part 1555.4940, item H, the juice resulting from cutting or shredding the pineapple flesh is considered to be pineapple juice, without regard to whether it has or has not been drained away from the pieces of pineapple.

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

#### 1555.4960 OPTIONAL SWEETENING INGREDIENTS.

The optional sweetening ingredients referred to in parts 1555.4940 and 1555.4955, are:

- A. sugar;
- B. invert sugar syrup;
- C. any mixture of optional sweetening ingredients designated in items A and B;
- D. any of the optional sweetening ingredients designated in items A, B, and C with dextrose, provided that the weight of the solids of dextrose does not exceed one-third of the total weight of the solids of the combined sweetening ingredients;

E. any of the optional sweetening ingredients designated in items A, B, and C with corn syrup or with dried corn syrup or with glucose syrup or with dried glucose syrup or with any two or more of these, provided that the weight of the solids of corn syrup, dried corn syrup, glucose syrup, dried glucose syrup, or the sum of the weights of the solids of corn syrup, dried corn syrup, glucose syrup, and dried glucose syrup, in case two or more of these are used, does not exceed one-fourth of the total weight of the solids of the combined sweetening ingredients; and

- F. any mixture of the optional ingredients designated in items D and E.

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

#### 1555.4970 DEFINITIONS.

Subpart 1. **Applicability.** For the purpose of parts 1555.4940 to 1555.5000, the following definitions apply.

Subp. 2. **Sugar.** The term "sugar" means refined sugar (sucrose.)

Subp. 3. **Invert sugar syrup.** The term "invert sugar syrup" means an aqueous solution of inverted or partly inverted, refined or partly refined sucrose, the solids of which contain not more than 0.3 percent by weight of ash and which is colorless, odorless, and flavorless except for sweetness.

Subp. 4. **Dextrose.** The term "dextrose" means the hydrated or anhydrous monosaccharide obtained from hydrolyzed starch.

Subp. 5. **Corn syrup and glucose syrup.** The term "corn syrup" means a clarified, concentrated aqueous solution of the products obtained by incomplete hydrolysis of cornstarch and includes dried corn syrup. The solids of corn syrup contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose. The term "glucose syrup" means a syrup that conforms to the definition in this subpart for corn syrup, except that it is made from any edible starch and includes dried glucose syrup.

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

#### 1555.4980 NAMES.

The name of the canned pineapple prepared from each of the optional forms of pineapple ingredient specified in part 1555.4940 is as follows: if the optional form is one designated in part 1555.4940, items A to G, the name is "pineapple" preceded or followed, for each of the indicated optional forms of units, by the words here specified: "sliced" or "slices;" "half sliced" or "half slices;" "broken sliced" or "broken slices;" "tidbits;" "chunks;" "cubes" or "diced;" "spears" or "fingers."

If the optional form is one designated in part 1555.4940, item H, the name is "pineapple," preceded or followed by the word "crushed." If the crushed pineapple, when drained by the method specified in part 1555.5020, subpart 2 yields not less than 73 percent but less than 78 percent by weight of drained material, the word "crushed" or the words "crushed pineapple" in the name of the food may be preceded or followed by the words "heavy pack" and if it yields 78 percent or more by weight of drained material the word "crushed" or the words "crushed pineapple" may be preceded or followed by the words "solid pack."

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

**1555.4990 OPTIONAL PACKING MEDIA LABELING.**

The labels of canned pineapple prepared from the optional forms of pineapple specified in part 1555.4940, items A to G shall bear the name of the optional packing medium used as specified in part 1555.4950, preceded by "in" or "packed in." Whenever the optional packing medium pineapple juice is used, the words "pineapple juice" may be preceded by the word "unsweetened." The labels of crushed pineapple canned with the optional packing media specified in part 1555.4950, except water, shall bear the statement "in" or "packed in \_\_\_\_\_," the blank being filled in with the name of the optional packing medium used as specified in part 1555.4950, but in lieu of such statement crushed pineapple canned with pineapple juice may be labeled "unsweetened" and crushed pineapple canned with pineapple juice and sugar may be labeled "lightly sweetened" or "heavily sweetened" or "extra heavily sweetened," if the drained liquid conforms to the density ranges specified in part 1555.4955 for light syrup, heavy syrup or extra heavy syrup, respectively.

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

**1555.5000 PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the words and statements specified in parts 1555.4940 to 1555.5000, showing the optional ingredients used, shall conspicuously precede or follow the name, without intervening written, printed, or graphic matter, except that the adjectival designation of the state, territory, or possession of the United States or of the foreign country in which the pineapples were grown may intervene.

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

**1555.5010 STANDARD OF QUALITY FOR CANNED PINEAPPLE.**

Subpart 1. **General.** The standard of quality for canned pineapple is as follows in subparts 2 to 15.

Subp. 2. **Broken slices.** In the case of broken slices, not more than ten percent of the drained weight may consist of pieces having an arc of less than 90 degrees and not more than five percent of the drained weight of the contents of the container, as determined by the method prescribed in part 1555.5020, subpart 2: consists of pieces that measure in thickness less than 5/16 inch or more than one inch; or consists of pieces that measure less than three-fourths inch in width as measured from the outer edge to the inner edge.

Subp. 3. **Cubes or diced pineapple.** In the case of cubes or diced pineapple:

A. not more than ten percent of the drained weight consists of units of such size that they pass through the screen when tested by the method prescribed in part 1555.5020, subpart 3; and

B. not more than 15 percent of the drained weight consists of pieces weighing more than 3/32 ounce each.

Subp. 4. **Chunks.** In the case of chunks, not more than 15 percent of the drained weight consists of pieces weighing less than 3/16 ounce each.

Subp. 5. **Slices and spears; half slices.** In the case of slices and spears, the drained weight of the largest unit in the container is not more than 1.4 times the weight of the smallest. In the case of half slices, the drained weight of the largest unit in the container is not more than 1.75 times the weight of the smallest (except for an occasional broken piece due to splitting or an occasional whole slice not quite completely cut through).

Subp. 6. **Broken slices.** In the case of broken slices, not more than five percent of the drained weight of the contents of the can consists of broken slices having an outside diameter differing by as much as three-eighths inch from that of those present in greatest proportion by weight.

Subp. 7. **Tidbits.** In the case of tidbits, not more than 15 percent of the drained weight consists of tidbits each of which weighs less than three-fourths as much as the average weight of all the untrimmed tidbits in the container.

Subp. 8. **Slices and half slices; units excessively trimmed.** In the case of slices and half slices, not more than 7-1/2 percent by count of the units in a container may be excessively

trimmed, but in any container having not more than ten units, one unit may be excessively trimmed and in any container having more than ten units, but not more than 27 units, two units may be excessively trimmed. Such slices and half slices are excessively trimmed if the portion trimmed away exceeds five percent of the apparent physical bulk of the perfectly formed unit and if such trimming destroys the normal circular shape of the outer or inner edge of the unit.

Subp. 9. **Broken slices, spears, and tidbits; units excessively trimmed.** In the case of broken slices and spears, not more than 15 percent by count of the total units in the container and, in the case of tidbits, not more than 15 percent of the drained weight, consist of units excessively trimmed. Broken slices, spears, and tidbits are excessively trimmed if the normal shape of these units is destroyed by such trimming.

Subp. 10. **Slices, half slices, broken slices, spears, chunks, cubes, and tidbits; blemishes.** In the case of slices, half slices, broken slices, spears, chunks, cubes, and tidbits, not more than 12-1/2 percent by count of the units in any container may be blemished, but in containers having not more than five units, one unit may be blemished; in containers having more than five units but not more than ten units, two units may be blemished; and in containers having more than ten units, but not more than 32 units, four units may be blemished. Blemishes include:

A. any of the following, if in excess of 1/16 inch in the longest dimension on the exposed of the unit: eyes, pieces of shell, brown spots;

B. deep fruit eyes;

C. bruised portions; and

D. other abnormalities that it is possible to detect in good commercial practice before sealing in the containers.

Subp. 11. **Crushed pineapple; blemishes.** In the case of crushed pineapple, not more than 1-1/4 percent of the drained weight of the contents of the can consists of fragments bearing such blemishes.

Subp. 12. **Spears, slices and half slices, broken slices, chunks, tidbits; mashing.** In the case of spears, not more than one unit per container is mashed; in the case of slices and half slices, not more than one unit in containers of 25 units or less and not more than three units in containers of more than 25 units are mashed; in the case of broken slices, not more than five percent by count of the units in the container is mashed; in the case of chunks, not more than three of the units in containers of less than 70 units or five percent of the units in containers of 70 units or more is mashed; in the case of tidbits, not more than three of the units in containers of less than 150 units or two percent of the units in containers of 150 units or more, is mashed. (A unit that has lost its normal shape because of ripeness and which bears no mark of mechanical injury shall not be considered as mashed.)

Subp. 13. **All forms of canned pineapple; core.** In the case of all forms of canned pineapple, not more than 1.1 ounces of core is contained in one pound of drained fruit, as determined by the method prescribed in part 1555.5020, subpart 7.

Subp. 14. **All forms of canned pineapple; acid.** In the case of all forms of canned pineapple, not more than 1.35 grams of acid, as determined by the method prescribed in part 1555.5020, subpart 8, and calculated as anhydrous citric acid, is contained in 100 milliliters of the liquid drained from the product 15 days or more after the pineapple is canned.

Subp. 15. **Crushed pineapple; drained weight.** In the case of crushed pineapple, the drained weight of pineapple, as determined by the method prescribed in part 1555.5020, subpart 2, is not less than 63 percent of the net weight of the contents of the container.

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

#### **1555.5020 METHODS.**

Subpart 1. **General.** The methods to be employed to determine whether canned pineapple meets the requirements of part 1555.5010 are as follows in subparts 2 to 8.

Subp. 2. **Drained weight of canned pineapple.** Determine the drained weight of the canned pineapple by the following procedure: pour the contents of the can on a round sieve made from No. 8 woven-wire cloth complying with the specifications for such cloth in Table I of "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the United

States Department of Commerce, National Bureau of Standards. Use a sieve eight inches in diameter for containers of less than three pounds net contents and a sieve 12 inches in diameter for larger containers. Incline the sieve, without shifting the contents, to facilitate draining. Allow to drain for two minutes from the time the contents of the container are poured on the sieve. Immediately transfer the drained pineapple to a clean, dry, tared pan by inverting the sieve over the pan in one moderately rapid motion, and determine the weight of the drained pineapple. In the case of broken slices and spears, check the dimensions and weight of each unit against the requirements of part 1555.5010, subparts 2, 5, and 6. In the case of cubes, chunks, and tidbits, check the weight of the units against the requirements of part 1555.5010, subpart 3, item B and subparts 4 and 7.

Subp. 3. **Sieve test for cubes.** Test cubes for compliance with part 1555.5010, subpart 3, item A by placing the cubes, a few at a time, on the meshes of a sieve designated as 5/16 inch in Table I of "Standard Specifications for Sieves," described in subpart 2. After shaking gently, remove those that remain on the sieve before testing the next portion. Continue portion-wise until all units are tested, then determine the aggregate weight of those units that have passed through the sieve.

Subp. 4. **Units excessively trimmed.** Except in the case of cubes, chunks, and crushed pineapple, inspect all the units in the container to determine those that have been excessively trimmed, as defined in part 1555.5010, subpart 8 or 9.

Subp. 5. **Blemished fragments.** Except in the case of crushed pineapple, segregate and count each unit that is blemished, as defined in part 1555.5010, subpart 10. In the case of crushed pineapple, segregate each fragment of crushed pineapple bearing a blemish and determine the aggregate weight of such fragments to determine compliance with part 1555.5010, subpart 11.

Subp. 6. **Mashed units.** Except in the case of cubes and crushed pineapple, count the total units in the container and the number of mashed units, to determine compliance with part 1555.5010, subpart 12.

Subp. 7. **Core material.** In the case of each form of optional pineapple ingredient, identify and separate any core material cleanly from each of the units in the container and weigh the aggregate of such core material. Calculate the weight of the core material per pound of drained fruit to determine compliance with part 1555.5010, subpart 13.

Subp. 8. **Determination of total acidity of drained liquid.** Determine the total acidity of the drained liquid by titration, using the following method. Measure with a pipette ten milliliters of the unfiltered drained liquid into a 250 milliliter Erlenmeyer flask. Add 25 milliliters of freshly boiled distilled water and 0.3 milliliter of one percent phenolphthalein solution. Titrate with one-tenth normal sodium hydroxide solution to a faint permanently pink coloration. Multiply the number of milliliters of one-tenth normal sodium hydroxide required by 0.064 to calculate the number of grams of anhydrous citric acid per 100 milliliters of drained liquid.

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

### 1555.5030 LABEL STATEMENT OF SUBSTANDARD QUALITY.

If the quality of canned pineapple falls below the standard prescribed in part 1555.5010, the label shall bear the general statement of substandard quality specified in part 1550.0920, in the manner and form therein specified. However, if the quality of canned pineapple falls below standard with respect to only one of the factors of quality specified in part 1555.5010, there may be substituted for the second line of such general statement of substandard quality a new line as specified below, after the number corresponding to each subpart of part 1555.5010 that such canned pineapple fails to meet, as follows:

- A. "small broken pieces" or "thick broken pieces," as the case may be;
- B. "irregular and mixed sizes," "irregular small pieces," "mixed sizes" (these words are to be used only where the cubes are of mixed sizes and the tolerance for units larger than maximum size is exceeded);
- C. "irregular small pieces";
- D. "mixed sizes";
- E. "mixed sizes";

- F. "mixed sizes";
- G. "excessively trimmed";
- H. "excessively trimmed";
- I. "blemished" or "contains blemished pieces";
- J. "blemished" or "contains blemished pieces";
- K. "mashed units" or "contains mashed units";
- L. "poorly cored" or "excessive core";
- M. "excessively tart"; and
- N. "contains excess liquid."

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

#### **1555.5040 STANDARD OF FILL OF CONTAINER FOR CANNED CRUSHED PINEAPPLE.**

The standard of fill of container for canned crushed pineapple is a fill of not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in parts 1550.0900 to 1550.0910.

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

#### **1555.5050 LABEL STATEMENT OF SUBSTANDARD FILL.**

If canned crushed pineapple falls below the standard of fill of container prescribed in part 1555.5040, the label shall bear the general statement of substandard fill specified in part 1550.0920, in the manner and form therein specified.

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

#### **1555.5060 CANNED PINEAPPLE JUICE.**

"Canned pineapple juice" is the unconcentrated juice from the flesh or parts thereof or from the cores or from both such flesh and cores of mature pineapples. Canned pineapple juice may be extracted cold, or heat may be used in the extraction, but in neither case is water added. Canned pineapple juice contains finely divided insoluble solids, but it does not contain pieces of shell, seeds, or other coarse or hard substances. It may be sweetened with sugar. Before or after sealing in the container, canned pineapple juice is so processed by heat as to prevent spoilage.

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

#### **1555.5070 SUGAR.**

For the purposes of parts 1555.5060 to 1555.5100, the term "sugar" means refined sugar (sucrose).

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

#### **1555.5080 NAME.**

The name of the food is "pineapple juice." If no sugar is added, the word "unsweetened" may immediately precede or follow the words "pineapple juice."

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

#### **1555.5090 OPTIONAL SWEETENING INGREDIENT.**

If the optional sweetening ingredient sugar is used, the label shall bear the statement "sugar added."

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

#### **1555.5100 LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the words specified in parts 1555.5060 to 1555.5100, showing the optional ingredient used, shall conspicuously precede or follow the name, without intervening written, printed, or graphic matter, except that the adjectival designation of the state, territory or possession of the United States or of the foreign country in which the pineapples were grown may intervene.

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



**1555.5110 CANNED PINEAPPLE JUICE.**

The standard of quality for canned pineapple juice is as follows: the soluble solids content is not less than 10.5 degrees Brix, as determined by the method prescribed in part 1555.5120, item A. The acidity, as determined by the method prescribed in part 1555.5120, item B, is not more than 1.35 grams of anhydrous citric acid per 100 milliliters of the juice. The ratio of the degrees Brix to total acidity, as determined by the method prescribed in part 1555.5120, item C, is not less than 12. The quantity of finely divided "insoluble solids," as determined by the method prescribed in part 1555.5120, item D, is not less than five percent nor more than 30 percent.

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

**1555.5120 METHODS.**

The methods referred to in part 1555.5110 are as follows:

A. Determine the degrees Brix of the canned pineapple juice by the method prescribed in "Official Methods of Analysis of the Association of Official Agricultural Chemists," "Solids — By Means of Spindle — Official," eighth edition, page 533, section 29.9.

B. Determine the total acidity of the canned pineapple juice by titration by the method prescribed in part 1555.5020, subpart 8.

C. Divide the degrees Brix determined as prescribed in item A by the grams of anhydrous citric acid per 100 milliliters of juice, determined as prescribed in item B and report the results as ratio of degrees Brix to total acidity.

D. Determine the quantity of "insoluble solids" in canned pineapple juice as follows: measure 50 milliliters of thoroughly stirred pineapple juice into a cone-shaped graduated tube of the long-cone type, measuring approximately 4–3/16 inches from tip to top calibration and having a capacity of 50 milliliters. Place the tube in a suitable centrifuge the approximate speed of which is related to diameter of swing in accordance with the table immediately below. The word "diameter" means the overall distance between the tips of opposing centrifuge tubes in operating position.

Diameter (inches)	Approximate revolutions per minute
10	1,609
10–1/2	1,570
11	1,534
11–1/2	1,500
12	1,468
12–1/2	1,438
13	1,410
13–1/2	1,384
14	1,359
14–1/2	1,336
15	1,313
15–1/2	1,292
16	1,271
16–1/2	1,252
17	1,234
17–1/2	1,216
18	1,199
18–1/2	1,182
19	1,167
19–1/2	1,152
20	1,127

The milliliter reading at the top of the layer of "insoluble solids," after centrifuging three minutes, is multiplied by two to obtain the percentage of "insoluble solids."

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

**1555.5130 LABEL STATEMENT OF SUBSTANDARD QUALITY.**

If the quality of canned pineapple juice falls below the standard prescribed in part 1555.5110, the label shall bear the general statement of substandard quality specified in part 1550.0920, in the manner and form therein specified.

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

**1555.5140 STANDARD OF FILL OF CONTAINER FOR CANNED PINEAPPLE JUICE.**

The standard of fill of container for canned pineapple juice is a fill of not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in parts 1550.0900 to 1550.0910.

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

**1555.5150 LABEL STATEMENT OF SUBSTANDARD FILL.**

If canned pineapple juice falls below the standard of fill of container prescribed in part 1555.5140, the label shall bear the statement of substandard fill specified in part 1550.0920, in the manner and form therein specified.

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

**1555.5160 CANNED PRUNE JUICE.**

"Canned prune juice" is the food prepared from a water extract of dried prunes and contains not less than 18.5 percent by weight of water-soluble solids extracted from dried prunes. The quantity of prune solids may be adjusted by the concentration or dilution or both of the water extract or extracts made. Such food may contain one or more of the optional acidifying ingredients specified in part 1555.5170, in a quantity sufficient to render the food slightly tart. Such food is sealed in a container and so processed by heat, before or after sealing, as to prevent spoilage.

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

**1555.5170 OPTIONAL ACIDIFYING INGREDIENTS.**

The optional acidifying ingredients referred to in part 1555.5160 are lemon juice, lime juice, and citric acid.

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

**1555.5180 LABEL DECLARATION OF NAME OF FOOD.**

The name of the food is "prune juice — a water extract of dried prunes."

For the purposes of the federal Food, Drug and Cosmetic Act concerning the label declaration of the name of the food, the explanatory statement "a water extract of dried prunes" may appear immediately below the words "prune juice," but there shall be no intervening written, printed, or graphic matter and the type used for the words "a water extract of dried prunes" shall be of the same style and not less than half the point size of the type used for the words "prune juice."

When one or more of the acidifying ingredients specified in part 1555.5170 are used, the label shall bear the statement "\_\_\_\_\_ added" or "with added \_\_\_\_\_," the blank being filled in with the name or names of 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 words specified in this part, 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*

**1555.5210 CANNED FIGS.**

"Canned figs" is the food prepared from one of the optional fig ingredients specified in part 1555.5220 and one of the optional packing media specified in parts 1555.5230 to

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1555.5250 to which citric acid or lemon juice or concentrated lemon juice is added, if necessary, in such quantity as to reduce the pH of the finished product to 4.9 or below. One or more of the following optional ingredients may be added to flavor, garnish, or season the canned figs:

- A. spice;
- B. flavoring, other than artificial flavoring;
- C. a vinegar;
- D. unpeeled segments of citrus fruits; and
- E. salt.

Such food is sealed in a container and so processed by heat as to prevent spoilage.

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

## 1555.5220 OPTIONAL FIG INGREDIENTS.

The optional fig ingredients referred to in part 1555.5210 are prepared from mature figs of the light or dark varieties. Figs (or whole figs), split figs (or broken figs), or any combination thereof are optional fig ingredients. A fig (whole fig) is one that is whole or only slightly cracked and retains its natural conformation without exposing the interior. A split fig (or broken fig) is one that is open to such an extent that the seed cavity is exposed, the shape of the fruit may be distorted, and the fruit may or may not be broken apart into entirely separate pieces.

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

## 1555.5230 OPTIONAL PACKING MEDIA.

The optional packing media referred to in part 1555.5210 are: water; light syrup; heavy syrup; extra heavy syrup.

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

## 1555.5240 LIQUID INGREDIENT AND SACCHARINE INGREDIENT.

Each of the packing media in part 1555.5230, except water, is prepared with a liquid ingredient and a saccharine ingredient. Water is the liquid ingredient from which these packing media are prepared. The saccharine ingredient from which the packing media are prepared is one of the following: sugar; any combination of sugar and dextrose in which the weight of the solids of the dextrose used is not more than one-half the weight of the solids of the sugar used; any combination of sugar and corn syrup or glucose syrup in which the weight of the solids of the corn syrup or glucose syrup used is not more than one-third the weight of the solids of the sugar used; or any combination of sugar, dextrose, and corn syrup or glucose syrup in which twice the weight of the solids of the dextrose used added to three times the weight of the solids of the corn syrup or glucose syrup used is not more than the weight of the solids of the sugar used.

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

## 1555.5250 DENSITIES.

The respective densities of packing media light syrup, heavy syrup, and extra heavy syrup, as measured on the Brix hydrometer 15 days or more after the figs are canned, are within the range prescribed for each in the following list:

## Brix measurement

- A. light syrup, 16 degrees or more but less than 21 degrees;
- B. heavy syrup, 21 degrees or more but less than 26 degrees; and
- C. extra heavy syrup, 26 degrees or more but less than 35 degrees.

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

## 1555.5260 DEFINITIONS.

Subpart 1. **Applicability.** For the purposes of parts 1555.5210 to 1555.5280, the following definitions apply.

Subp. 2. **Sugar and invert sugar syrup.** The term "sugar" means refined sucrose or invert sugar syrup. The term "invert sugar syrup" means an aqueous solution of inverted or

partly inverted, refined or partly refined sucrose, the solids of which contain not more than 0.3 percent by weight of ash and which is colorless, odorless, and flavorless except for sweetness.

Subp. 3. **Dextrose.** The term "dextrose" means the hydrated or anhydrous, refined monosaccharide obtained from hydrolyzed starch.

Subp. 4. **Corn syrup.** The term "corn syrup" means a clarified, concentrated aqueous solution of the products obtained by the incomplete hydrolysis of cornstarch and includes dried corn syrup. The solids of corn syrup and of dried corn syrup contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose.

Subp. 5. **Glucose syrup and dried glucose syrup.** The term "glucose syrup" means a clarified, concentrated aqueous solution of the products obtained by the incomplete hydrolysis of any edible starch. The solids of glucose syrup contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose. "Dried glucose syrup" means the product obtained by drying "glucose syrup."

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

#### 1555.5270 LABEL STATEMENT OF OPTIONAL INGREDIENTS.

The label shall name the optional fig ingredient used, as specified in part 1555.5220. Where combinations of figs and split figs are used, the ingredient present in larger proportion by weight shall be named first and the name whereby the optional packing medium is designated in part 1555.5230, preceded by "in" or "packed in." When any of the optional ingredients permitted by part 1555.5210 is used the label shall bear the words set forth in the corresponding item of this part:

A. "spiced" or "spice added" or "with added spice" or in lieu of the word "spice," the common name of the spice;

B. "flavoring added" or "with added flavoring" or, in lieu of the word "flavoring," the common name of the flavoring;

C. "seasoned with vinegar" or "seasoned with \_\_\_\_\_ vinegar," the blank being filled in with the name of the vinegar used;

D. "with added \_\_\_\_\_," the blank being filled in with the name or names of the citrus segment or segments used;

E. "seasoned with salt" or "salt added." When the addition of lemon juice (including concentrated lemon juice) or citric acid lowers the pH of the canned figs to less than 4.3, the label shall bear the statement "with added lemon juice" or "with added concentrated lemon juice" (if such is used) or "with added citric acid."

When two or more of the optional ingredients specified in part 1555.5210 are used, such words may be combined, as for example, "with added spices, orange slices, and lemon juice."

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

#### 1555.5280 PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.

Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the words specified in parts 1555.5210 to 1555.5270 showing the optional ingredients used, shall immediately and conspicuously precede or follow such name without intervening written, printed, or graphic matter, except that the varietal name of the figs may so intervene.

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

### CANNED VEGETABLES

#### 1555.5290 CANNED PEAS.

"Canned peas" is the food prepared from one of the following optional pea ingredients:

A. shelled, succulent peas (*Pisum sativum*) of Alaska or other smooth-skinned varieties;

B. shelled, succulent peas (*Pisum sativum*) of sweet, wrinkled varieties;

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C. shelled, dried peas (*Pisum sativum*) of Alaska or other smooth-skinned varieties; or

D. shelled, dried peas (*Pisum sativum*) of sweet, wrinkled varieties.

To one such optional pea ingredient water is added.

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

**1555.5300 OPTIONAL INGREDIENTS.**

The following optional ingredients may be used:

A. salt, monosodium glutamate, sugar, dextrose, spice, flavoring, or artificial coloring; and

B. in the case the optional pea ingredient in item A or B of part 1555.5290 is used, sodium carbonate, sodium bicarbonate, sodium hydroxide, calcium hydroxide, magnesium hydroxide, magnesium oxide, or magnesium carbonate, or any mixture or combination of them in such quantity that the pH of the finished canned peas is not more than eight, as determined by the glass electrode method for the hydrogen ion concentration.

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

**1555.5310 OPTIONAL SEASONINGS.**

The food may be seasoned with one or more of the following optional seasonings: green peppers, mint leaves, onions, garlic, or horseradish.

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

**1555.5320 SEALING AND PROCESSING.**

The food is sealed in a container and so processed by heat as to prevent spoilage.

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

**1555.5330 OPTIONAL INGREDIENTS LABELING.**

The label shall name the optional pea ingredient present by the use of the word or words "early" or "June" or "early June," "sweet" or "sweet wrinkle" or "sugar," "dried early" or "dried June" or "dried early June," "dried sweet" or "dried sweet wrinkled" or "dried sugar."

If spice is present, the label shall bear the word or words "spiced" or "with added spice" or "spice added." If flavoring is present, the label shall bear the words "with added flavoring" or "flavoring added." If artificial coloring is present, the label shall state that fact in such manner and form as is provided in part 1555.5370. If an optional seasoning ingredient is used, the label shall bear the words "seasoned with green peppers," "seasoned with mint leaves," "seasoned with garlic," or "seasoned with horseradish," as the case may be. If one or more of the optional ingredients named in part 1555.5300, item B is used, the label shall bear the statement "traces of \_\_\_\_\_ added," the blank to be filled in with the names of the ingredients used; but in lieu of such statement the label may bear the statement "traces of alkalis added." If monosodium glutamate is used, the label shall bear the statement "monosodium glutamate added" or "with added monosodium glutamate."

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

**1555.5340 PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

Wherever the name "peas" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the words and statements specified in parts 1555.5290 to 1555.5330, showing the optional ingredients present, shall immediately and conspicuously precede or follow such name without intervening written, printed, or graphic matter, except that the specific varietal name of the peas may so intervene.

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

**1555.5350 STANDARD OF QUALITY FOR CANNED PEAS.**

The standard of quality for canned peas is as follows:

A. not more than four percent by count of the peas in the container are spotted or otherwise discolored;

- B. standard canned peas are normally colored, not artificially colored;
- C. the combined weight of pea pods and other harmless extraneous vegetable material is not more than one-half of one percent of the drained weight of peas in the container;
- D. the weight of pieces of peas is not more than ten percent of the drained weight of peas in the container;
- E. the skins of not more than 25 percent by count of the peas in the container are ruptured to a width of 1/16 inch or more;
- F. not less than 90 percent by count of the peas in the container are crushed by a weight of not more than 907.2 grams (two pounds); and
- G. the alcohol-insoluble solids of Alaska or other smooth-skinned varieties of peas in the container, is not more than 23.5 percent and of sweet, wrinkled varieties, not more than 21 percent.

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

#### **1555.5360 METHODS OF TESTING.**

Canned peas shall be tested by the following methods to determine whether or not they meet the requirements of part 1555.5350:

A. After determining the fill of the container as prescribed in part 1555.5380, distribute the contents of the container over the meshes of a circular sieve made with No. 8 woven-wire cloth which complies with the specification for such cloth set forth on page 3 of "Standard Specifications for Sieves," published October 25, 1938, by the United States Department of Commerce, National Bureau of Standards. The diameter of the sieve used is eight inches if the quantity of the contents of the container is less than three pounds or 12 inches if such quantity is three pounds or more. Without shifting the peas, so incline the sieve as to facilitate drainage. Two minutes from the time drainage begins, remove the peas from the sieve and weigh them. Such weight shall be considered to be the drained weight of the peas.

B. From the drained peas obtained in item A, promptly segregate and weigh the pea pods and other harmless extraneous vegetable material and the pieces of peas.

C. From the drained peas obtained in item A, take at random a subdivision of 100 to 150 peas and count them. Immediately cover these peas with a portion of the liquid obtained in item A and add the remaining liquid to the drained peas from which the subdivision was taken. Count those peas in the subdivision which are spotted or otherwise discolored and also those peas the skins of which are ruptured to a width of 1/16 inch or more.

D. Immediately after each pea is examined by the method prescribed in item C, test it by removing its skin, placing one of its cotyledons, with flat surface down, on the approximate center of the level, smooth surface of a rigid plate, lowering a horizontal disc to the highest point of the cotyledon and measuring the height of the cotyledon. The disc is of rigid material and is affixed to a rod held vertically by a support through which the rod can freely move upward or downward. The lower face of the disc is a smooth, plane surface horizontal to the vertical axis of the rod. A device to which weight may be added is affixed to the upper end of the rod. Before lowering the disc to the cotyledon, adjust the combined weight of disc, rod, and device to 100 grams. After measuring the height of the cotyledon and shifting the plate, if necessary, so that the cotyledon is under the approximate center of the disc, add weight to the device at a uniform, continuous rate of 12 grams per second until the cotyledon is pressed to one-fourth its previously measured height or until the combined weight of disc, rod, and device is 907.2 grams (two pounds). A pea so tested shall be considered to be crushed when its cotyledon is pressed to one-fourth its original height.

E. Drain the liquid from the peas which remained after taking the subdivision as prescribed in item C. Transfer the peas to a pan and rinse them with a volume of water equal to twice the capacity of the container from which such peas were drained in item A. Immediately drain the peas again by the method prescribed in item A. After the two minutes draining, wipe the moisture from the bottom of the sieve. Commingle the peas thus drained, stir them to a uniform mixture and weigh 20 grams of such mixture into a 600 cubic centimeters beaker. Add 300 cubic centimeters of 80 percent alcohol (by volume), stir, cover beaker, and bring to a boil. Simmer slowly for 30 minutes. Fit a Buchner funnel with a previously pre-

pared filter paper of such size that its edges extend one-half inch or more up the vertical sides of the funnel. The previous preparation of the filter paper consists of drying it in a flat-bottomed dish for two hours at 100 degrees Celsius, covering the dish with a tight fitting cover, cooling it in a desiccator and promptly weighing. After the filter paper is fitted to the funnel apply suction and transfer the contents of the beaker to the funnel. Do not allow any of the material to run over the edge of the paper. Wash the material on the filter with 80 percent alcohol (by volume) until the washings are clear and colorless. Transfer the filter paper with the material retained thereon to the dish used in preparing the filter paper. Dry the material in a ventilated oven, without covering the dish, for two hours at 100 degrees Celsius. Place the cover on the dish, cool it in a desiccator, and promptly weigh. From this weight, subtract the weight of the dish, cover, and paper, as previously found. The weight in grams thus obtained, multiplied by five, shall be considered to be the percent of alcohol-insoluble solids.

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

#### 1555.5370 LABEL STATEMENT OF SUBSTANDARD QUALITY.

If the quality of canned peas falls below the standard prescribed in part 1555.5350, the label shall bear the general statement of substandard quality specified in part 1550.0920, in the manner and form therein specified; but in lieu of such general statement of substandard quality when the quality of canned peas falls below the standard in only one respect, the label may bear the alternative statement "below standard in quality \_\_\_\_\_," the blank to be filled in with the words specified in the item of this part corresponding to the item of part 1555.5350 which such canned peas fail to meet, as follows:

- A. "excessive discolored peas";
- B. "artificially colored";
- C. "excessive foreign material";
- D. "excessive broken peas";
- E. "excessive cracked peas";
- F. "not tender"; or
- G. "excessively mealy."

Such alternative statement shall immediately and conspicuously precede or follow, without intervening written, printed, or graphic matter, the name "peas" and any words and statements required or authorized to appear with such name by parts 1555.5350 to 1555.5370.

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

#### 1555.5380 STANDARD OF FILL OF CONTAINER FOR CANNED PEAS.

The standard of fill of container for canned peas is a fill such that, when the peas and liquid are removed from the container and returned thereto, the leveled peas (irrespective of the quantity of the liquid), 15 seconds after they are so returned completely fill the container. A container with lid attached by double seam shall be considered to be completely filled when it is filled to the level 3/16 inch vertical distance below the top of the double seam; and a glass container shall be considered to be completely filled when it is filled to the level one-half inch vertical distance below the top of the container.

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

#### 1555.5390 LABEL STATEMENT OF SUBSTANDARD FILL.

If the canned peas fall below the standard of fill of container prescribed in part 1555.5380, the label shall bear the general statement of substandard fill specified in part 1550.0920, in the manner and form therein specified.

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

#### 1555.5400 CANNED GREEN BEANS.

"Canned green beans" is the food prepared from stemmed, succulent pods of the green bean plant and water. It may be seasoned with salt, monosodium glutamate, sugar, or dextrose or any two or all of these. The pods are prepared in one or more of the following forms:

A. whole pods, including pods which after removal of either or both ends are less than 2-3/4 inches in length or transversely cut pods not less than 2-3/4 inches in length.

There may be present such broken pieces of pods as normally occur in the commercial packing of such product;

B. pods sliced lengthwise;

C. pods cut transversely into pieces less than 2-3/4 inches in length but not less than three-fourth inch in length, with or without shorter end pieces resulting therefrom;

D. pieces of pods of which not less than 75 percent by count are less than three-fourth inch in length and not more than one percent by count are more than 1-1/4 inches in length.

Any such form is an optional ingredient. Mixtures of two or more optional ingredients may be used. The food is sealed in a container and so processed by heat as to prevent spoilage.

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

#### **1555.5410 OPTIONAL INGREDIENTS LABELING.**

When optional ingredient specified in part 1555.5400, item A is used the label shall bear the word "whole." If the pods are packed parallel to the sides of the container the word "whole" shall be preceded or followed by the words "vertical pack," except that when the pods are cut at both ends and are of substantially equal lengths, the words "asparagus style" may be used in lieu of the words "vertical pack."

When optional ingredient specified in part 1555.5400, item B is used the label shall bear the words "sliced lengthwise" or "french style."

When optional ingredient specified in part 1555.5400, item C is used the label shall bear the word "cut" or "cuts."

When optional ingredient specified in part 1555.5400, item D is used the label shall bear the words "short cut" or "short cuts," "\_\_\_\_ inch cut" or "\_\_\_\_ inch cuts," the blank to be filled in with the fraction of an inch which denotes the approximate length of the pieces.

When a mixture of two or more of the optional ingredients specified in part 1555.5400 is used, the label shall bear the statement "mixture of \_\_\_\_\_," the blank to be filled in with the combination of the names "whole," "sliced lengthwise," "cut," "cuts," and "short cut" or "short cuts" designating the optional ingredients present and arranged in the order of predominance, if any, by weight of such ingredients.

If monosodium glutamate is used, the label shall bear the statement "monosodium glutamate added" or "with added monosodium glutamate."

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

#### **1555.5420 PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

Wherever the name "green beans" appears on the label so conspicuously as to be easily seen under the customary conditions of purchase, the words and statements prescribed by part 1555.5410 shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that there may intervene the designation of the length of cut; the varietal name, which may include the word "stringless," where the beans are in fact stringless; and the description of the green beans as "stringless," which may also be used between the words "green" and "beans," where the beans are in fact stringless.

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

#### **1555.5430 STANDARD OF QUALITY OF CANNED GREEN BEANS.**

The standard of quality of canned green beans is as follows when tested by the method prescribed in part 1555.5440.

A. In the case of cut beans (part 1555.5400, item C) and mixtures of two or more of the optional ingredients specified in part 1555.5400, not more than 60 units per 12 ounces drained weight are less than one-half inch long; provided that where the number of units per 12 ounces drained weight exceed 240, not more than 25 percent by count of the total units are less than one-half inch long.

B. The trimmed pods contain not more than 25 percent by weight of seed and pieces of seed.



C. In case there are present pods or pieces of pods  $\frac{27}{64}$  inch or more in diameter, there are not more than 12 strings per 12 ounces of drained weight which will support one-half pound for five seconds or longer.

D. The deseeded pods contain not more than 0.15 percent by weight of fibrous material.

E. There are not more than eight percent by count of blemished units. A unit is considered blemished when the aggregate blemished area exceeds the area of a circle one-eighth inch in diameter.

F. There are not more than six unstemmed units per 12 ounces of drained weight.

G. The combined weight of loose seed and pieces of seed is not more than five percent of the drained weight. This provision does not apply in case the green bean ingredient is pods sliced lengthwise (part 1555.5400, item B).

H. The combined weight of leaves, detached stems, and other extraneous vegetable matter is not more than 0.6 ounce per 60 ounces drained weight.

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

#### 1555.5440 METHOD OF TESTING.

Subpart 1. **Directions.** Canned green beans shall be tested by the following method to determine whether they meet the requirements of part 1555.5430:

A. Distribute the contents of the container over the meshes of a circular sieve which has been previously weighed. The diameter of the sieve is eight inches if the quantity of the contents of the container is less than three pounds and 12 inches if such quantity is three pounds or more. The bottom of the sieve is woven-wire cloth which complies with the specifications for such cloth set forth under "2380 Micron (No. 8)" in Table 8 of "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the United States Department of Commerce, National Bureau of Standards. Without shifting the material on the sieve, so incline the sieve as to facilitate drainage. Two minutes from the time drainage begins, weigh the sieve and the drained material. Record, in ounces, the weight so found, less the weight of the sieve, as the drained weight.

B. Pour the drained material from the sieve into a flat tray and spread it in a layer of fairly uniform thickness. Count the total number of units. For the purpose of this count, loose seed, pieces of seed, loose stem, and extraneous material are not to be included. Divide the number of units by the drained weight recorded in item A and multiply by 12 to obtain the number of units per 12 ounces drained weight.

C. Examine the drained material in the tray, counting and recording the number of blemished units, number of unstemmed units, and, in case the material consists of the optional ingredient specified in part 1555.5430, item C or a mixture of two or more of the optional ingredients specified in part 1555.5400, count and record the number of units which are less than one-half inch long. If the number of units per 12 ounces is 240 or less, divide the number of units which are less than one-half inch long by the drained weight recorded in item A and multiply by 12 to obtain the number of such units per 12 ounces drained weight. If the number of units per 12 ounces exceeds 240, divide the number of units less than one-half inch long by the total number of units and multiply by 100 to determine the percentage by count of the total units which are less than one-half inch long. Divide the number of blemished units by the total number of units in the container and multiply by 100 to obtain the percentage by count of blemished units in the container. Divide the number of unstemmed units by the drained weight recorded in item A and multiply by 12 to obtain the number of unstemmed units per 12 ounces of drained weight.

D. Except in the case of pods sliced lengthwise remove the loose seed and pieces of seed, weigh, record weight, and return to tray. Divide the weight of loose seed and pieces of seed by the drained weight recorded in item A and multiply by 100 to obtain the percentage by weight of loose seed and pieces of seed in the drained material.

E. Remove from the tray the extraneous vegetable material, weigh, record weight, and return to tray.

F. Remove from the tray one or more representative samples of  $3\frac{1}{2}$  to four ounces, covering each sample as taken to prevent evaporation. If the tray includes pods or

pieces of pods  $27/64$  inch or more in diameter, weigh and record weight in ounces of each representative sample.

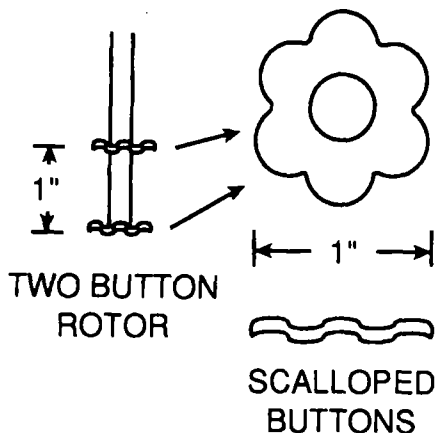
G. From each representative sample selected in item F discard any loose seed and extraneous vegetable material and detach and discard any attached stems. Except with optional ingredient specified in part 1555.5400, item B, pods sliced lengthwise, trim off, as far as the end of the space formerly occupied by the seed, any portion of pods from which seed have become separated. Remove and discard any portions of seed from the trimmings and reserve the trimmings for item I. Weigh and record the weight of the trimmed pods. Deseed the trimmed pods and reserve the deseeded pods for item I. If the original container contained pods  $27/64$  inch or more in diameter, remove strings from the pods during the deseeding operation. Reserve these strings for testing as prescribed in item H. Collect the seed on a sieve of mesh fine enough to retain them, and so distribute them that any liquid drains away. Weigh the seed, divide by the weight of the trimmed pods, and multiply by 100 to obtain the percentage by weight of seed in the trimmed pods. In the case of pods sliced lengthwise, remove seed and pieces of seed or reserve the deseeded pods for use as prescribed in item I.

H. If strings have been removed for testing, as prescribed in item G, test them as follows. Fasten clamp, weighted to one-half pound, to one end of the string, grasp the other end with the fingers (a cloth may be used to aid in holding the string), and lift gently. Count the string as tough if it supports the one-half pound weight for at least five seconds. If the string breaks before five seconds, test such parts into which it breaks as are one-half inch or more in length and if any such part of the string supports the one-half pound weight for at least five seconds count the string as tough. Divide the number of tough strings by the weight of the sample recorded in item F and multiply by 12 to obtain the number of tough strings per 12 ounces drained weight.

I. Combine the deseeded pods with the trimmings reserved in item G and, if strings were tested as prescribed in item H, add such strings, broken or unbroken. Weigh and record weight of combined material. Transfer to the metal cup of a malted milk stirrer and mash with a pestle. Wash material adhering to the pestle back into cup with 200 cubic centimeters of boiling water. Bring mixture nearly to a boil, add 25 cubic centimeters of 50 percent (by weight) sodium hydroxide solution and bring to a boil. (If foaming is excessive, one cubic centimeter of capryl alcohol may be added.) Boil for five minutes, then stir for five minutes with a malted milk stirrer capable of a no-load speed of at least 7200 rpm. Use a rotor with two scalloped buttons shaped as shown in the diagram in subpart 2. Transfer the material from the cup to a previously weighed 30-mesh monel metal screen having a diameter of about  $3\text{--}1/2$  to four inches and side walls about one inch high and wash fiber on the screen with a stream of water using a pressure not exceeding a head (vertical distance between upper level of water and outlet of glass tube) of 60 inches, delivered through a glass tube three inches long and one-eighth inch inside diameter inserted into a rubber tube of one-fourth inch inside diameter. Wash the pulpy portion of the material through the screen and continue washing until the remaining fibrous material, moistened with phenolphthalein solution, does not show any red color after standing five minutes. Again wash to remove phenolphthalein. Dry the screen containing the fibrous material for two hours at 100 degrees Celsius, cool, weigh, and deduct weight of screen. Divide the weight of fibrous material by the weight of combined deseeded pods, trimmings, and strings and multiply by 100 to obtain the percentage of fibrous material.

J. If the drained weight recorded in item A was less than 60 ounces, open and examine separately for extraneous material, as directed in item E, additional containers until a total of not less than 60 ounces of drained material is obtained. To determine the combined weight of extraneous vegetable material per 60 ounces of drained weight, total the weights of extraneous vegetable material found in all containers opened, divide this sum by the sum of the drained weights in these containers, and multiply by 60.

## Subp. 2. Diagram.



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

**1555.5450 LABEL STATEMENT OF SUBSTANDARD QUALITY.**

If the quality of the canned green beans falls below the standard of quality prescribed by part 1555.5430, the label shall bear the general statement of substandard quality specified in part 1550.0920, in the manner and form therein specified, but in lieu of the words prescribed for the second line inside the rectangle the following words may be used, when the quality of canned green beans falls below the standard in only one of the following respects:

- A. "Excessive number very short pieces," if the canned green beans fail to meet the requirements of part 1555.5430, item A;
- B. "Excessive number blemished units," if they fail to meet the requirements of part 1555.5430, item E;
- C. "Excessive number unstemmed units," if they fail to meet the requirements of part 1555.5430, item F; or
- D. "Excessive foreign material," if they fail to meet the requirements of part 1555.5430, item H.

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

**1555.5455 CANNED WAX BEANS.**

Canned wax beans conform to the definition and standard of identity and are subject to the requirements for label statement of optional ingredients prescribed for canned green beans by parts 1555.5400 and 1555.5410, except that it is prepared from stemmed, succulent pods of the wax bean plant.

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

**1555.5460 PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

Wherever the name "wax beans" appears on the label so conspicuously as to be easily seen under the customary conditions of purchase, the words and statements prescribed by part 1555.5455 shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that there may intervene the designation of the length of cut, the varietal name, which may include the word "stringless" where the beans are in fact stringless, and the description of the wax beans as "stringless," which may also be used between the words "wax" and "beans," where the beans are in fact stringless.

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

**1555.5470 STANDARD OF QUALITY FOR CANNED WAX BEANS.**

The standard of quality for canned wax beans is that prescribed for canned green beans by parts 1555.5380 and 1555.5390.

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

**1555.5480 LABEL STATEMENT OF SUBSTANDARD QUALITY.**

If the quality of canned wax beans falls below the standard of quality prescribed by part 1555.5470, the label shall bear the statement of substandard quality in the manner and form specified in part 1555.5450 for canned green beans.

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

**1555.5490 CANNED CORN, CANNED SWEET CORN, CANNED SUGAR CORN.**

"Canned corn," "canned sweet corn," "canned sugar corn" is the food consisting of one of the corn ingredients specified in part 1555.5500, with water necessary for proper preparation and processing. It may be seasoned or garnished with one or more of the following optional ingredients:

- A. salt;
- B. monosodium glutamate;
- C. sugar (sucrose); and
- D. pieces of sweet red peppers or sweet green peppers or hot red peppers or hot green peppers or a mixture of any two or more of these.

It is sealed in a container and so processed by heat as to prevent spoilage.

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

**1555.5500 CORN INGREDIENTS.**

The corn ingredients referred to in part 1555.5490 consist of succulent sweet corn of the white or yellow color groups or mixtures of these and are as follows:

- A. cut kernels from which the hulls have not been separated;
- B. pieces of the inner portion of the corn kernel substantially free from hull;
- C. ground kernels from which the hulls have not been separated;
- D. a mixture of the form described in item A with one or both of the forms described in items B and C. When necessary to ensure smoothness, starch may be added in a quantity not more than sufficient for that purpose; and
- E. cut and cooked kernels from which most of the moisture has been evaporated. In preparing each of the foregoing corn ingredients, the tip caps are removed.

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

**1555.5510 DESCRIPTIVE LABELING FOR CANNED CORN.**

The name of the food is "corn" or "sweet corn" or "sugar corn" with the name of the color group used, "white," "yellow," or "golden," or with the names of the color groups used, "white and yellow" or "white and golden," when the white color group predominates and "yellow and white" or "golden and white," when the yellow color group predominates and with:

A. The words "whole kernel" or "whole grain," when the corn ingredient specified in part 1555.5500, item A is used. When the weight of the liquid in the container as determined by the method prescribed in part 1555.5590, item A is not more than 20 percent of the net weight, and the container is closed under conditions creating a high vacuum in the container, the words "vacuum pack" or "vacuum packed" are also part of the name.

B. The word "fritter," when the corn ingredient specified in part 1555.5500, item B is used.

C. The word "ground," when the corn ingredient specified in part 1555.5500, item C is used.

D. The words "cream style," when the corn ingredient specified in part 1555.5500, item D is used.

E. The word "evaporated," when the corn ingredient specified in part 1555.5500, item E is used.

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

**1555.5520 FOOD DEFINITIONS AND STANDARDS**

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**1555.5520 PARTS OF NAME.**

The parts of the name as specified in part 1555.5510 may be arranged in any order of precedence. The varietal name of the corn used may intervene between parts of the name of the food. For the purpose of arrangement of the name, the words "sweet" and "corn" may be treated as separate parts of the name. When the varietal name immediately precedes or follows the name or intervenes between parts of the name of the food and it accurately designates the color of the corn ingredient, no other designation of the color group need be made.

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

**1555.5530 OPTIONAL SEASONING INGREDIENTS LABELING.**

When the optional seasoning or garnishing ingredient specified in part 1555.5490, item D is used, the label shall bear the words "with \_\_\_\_\_ peppers," the blanks being filled in with the words "red" or "green" or both, to show the color of peppers used and "sweet" or "hot" or both, to show the kind of peppers used, as for example "with green sweet peppers" or "with hot red peppers."

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

**1555.5540 MONOSODIUM GLUTAMATE.**

If monosodium glutamate is used, the label shall bear the statement "monosodium glutamate added" or "with added monosodium glutamate."

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

**1555.5550 OPTIONAL STARCH INGREDIENT.**

When the optional starch ingredient specified in part 1555.5500, item D is used, the label shall bear the statement "starch added to ensure smoothness."

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

**1555.5560 PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

Wherever the name of the food appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the words and statements prescribed by parts 1555.5530 to 1555.5550 shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that the varietal name of the corn used may so intervene.

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

**1555.5570 STANDARD OF QUALITY FOR CANNED CORN.**

Subpart 1. **General.** The standard of quality for canned corn is as follows in subparts 2 and 3 and part 1555.5580.

Subp. 2. **Whole-kernel or evaporated corn.** When tested by the method prescribed in part 1555.5590, canned corn in which the corn ingredient is whole-kernel corn (part 1555.5500, item A) or evaporated corn (part 1555.5500, item E):

A. contains not more than one brown or black discolored kernel or piece of kernel for each two ounces of drained weight;

B. contains not more than one cubic centimeter of pieces of cob for each 14 ounces of drained weight;

C. contains not more than one square inch of husk for each 14 ounces of drained weight; and

D. contains not more than seven inches of silk for each one ounce of drained weight.

Subp. 3. **Fritter, ground, or cream-style corn.** When tested by the method prescribed in part 1555.5600, canned corn in which the corn ingredient is fritter corn (part 1555.5500, item B), ground corn (part 1555.5500, item C) or cream-style corn (part 1555.5500, item D):

A. contains not more than one brown or black discolored kernel or piece of kernel for each two ounces of net weight;

B. contains not more than one cubic centimeter of pieces of each 20 ounces of net weight;

C. contains not more than one square inch of husk for each 20 ounces of net weight;

D. contains not more than six inches of silk for each one ounce of net weight; and

E. has a consistency such that the average diameter of the approximately circular area over which the prescribed sample spreads does not exceed 12 inches, except that, in the case of cream-style corn the washed, drained material of which contains more than 20 percent of alcohol-insoluble solids, the average diameter of the approximately circular area over which the prescribed sample spreads does not exceed ten inches.

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

#### **1555.5580 ALCOHOL-INSOLUBLE SOLIDS LIMIT.**

Subpart 1. **Whole-kernel corn.** The weight of the alcohol-insoluble solids of whole-kernel corn (part 1555.5500, item A) does not exceed 27 percent of the drained weight, when tested by the method prescribed in part 1555.5590.

Subp. 2. **Cream-style corn.** The weight of the alcohol-insoluble solids of the washed drained material of cream-style corn (part 1555.5500, item D) does not exceed 27 percent of the weight of such material, when tested by the method prescribed in part 1555.5600.

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

#### **1555.5590 METHOD FOR TESTING WHOLE-KERNEL CORN AND EVAPORATED CORN.**

The method referred to in parts 1555.5570 and 1555.5580 for testing whole-kernel corn (part 1555.5500, item A) and evaporated corn (part 1555.5500, item E) is as follows:

A. Determine the gross weight of the container. Open and distribute the contents of the container over the meshes of an eight-mesh circular sieve which has previously been weighed. The diameter of the sieve is eight inches if the quantity of the contents of the container is less than three pounds and 12 inches if such quantity is three pounds or more. The bottom of the sieve is woven-wire cloth which complies with the specifications for such cloth set forth under "2380 Micron (No. 8)" in Table I of "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the United States Department of Commerce, National Bureau of Standards. Without shifting the material on the sieve, so incline the sieve as to facilitate drainage. Two minutes from the time drainage begins, weigh the sieve and the drained material. Record, in ounces, the weight so found, less the weight of the sieve, as the drained weight. Dry and weigh the empty container and subtract this weight from the gross weight to obtain the net weight. Calculate the percent of drained liquid in the net weight.

B. Pour the drained material from the sieve into a flat tray and spread it in a layer of fairly uniform thickness. Count, but do not remove, the brown or black discolored kernels or pieces of kernel and calculate the number per two ounces of drained material. Remove pieces of silk more than one-half inch long, husk, cob, and any pieces of material other than corn. Measure the aggregate length of such pieces of silk and calculate the length of silk per one ounce of drained weight. Spread the husk flat, measure its aggregate area, and calculate the area of husk per 14 ounces of drained weight. Place all pieces of cob under a measured amount of water in a cylinder which is so graduated that the volume can be measured to 0.1 cubic centimeter. Take the increase in volume as the aggregate volume of the cob and calculate the volume of cob per 14 ounces of drained weight.

C. If the corn is whole-kernel (part 1555.5500, item A), comminute a representative 100-gram sample of the drained corn from which the silk, husk, cob, and other material which is not corn (i.e., peppers) have been removed. An equal amount of water is used to facilitate this operation. Weigh to nearest 0.01 gram a portion of the comminuted material equivalent to approximately ten grams of the drained corn into a 600-cubic centimeter beaker. Add 300 cubic centimeters of 80 percent alcohol (by volume), stir, cover beaker, and bring to a boil. Simmer slowly for 30 minutes. Fit a Buchner funnel with a previously prepared filter paper of such size that its edges extend one-half inch or more up the vertical sides

of the funnel. The previous preparation of the filter paper consists of drying it in a flat-bottomed dish for two hours at 100 degrees Celsius, covering the dish with a tight fitting cover, cooling it in a desiccator, and promptly weighing to the nearest 0.001 gram. After the filter paper is fitted to the funnel, apply suction and transfer the contents of the beaker to the funnel. Do not allow any of the material to run over the edge of the paper. Wash the material on the filter with 80 percent alcohol (by volume) until the washings are clear and colorless. Transfer the filter paper with the material retained thereon to the dish used in preparing the filter paper. Dry the material in a ventilated oven, without covering the dish, for two hours at 100 degrees Celsius. Place the cover on the dish, cool it in a desiccator, and promptly weigh to the nearest 0.001 gram. From this weight subtract the weight of the dish, cover, and paper as previously found. Calculate the remainder to percentage.

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

#### **1555.5600 METHOD FOR TESTING FRITTER CORN AND CREAM-STYLE CORN.**

The method referred to in parts 1555.5570 and 1555.5580 for testing fritter corn (part 1555.5500, item C), ground corn (part 1555.5500, item D), and cream-style corn (part 1555.5500, item B), is as follows:

A. Allow the container to stand at least 24 hours at a temperature of 68 degrees Fahrenheit. Determine the gross weight, open, transfer the contents into a pan, and mix thoroughly in such a manner as not to incorporate air bubbles. (If the net contents of a single container is less than 18 ounces, determine the gross weight, open, and mix contents of the least number of containers necessary to obtain 18 ounces.) Fill level full a hollow, truncated cone so placed on a polished horizontal plate as to prevent leakage. The cone has an inside bottom diameter of three inches, inside top diameter of two inches, and height of 4-27/32 inches. As soon as the cone is filled, lift it vertically. Determine the average of the longest and shortest diameters of the approximately circular area on the plate covered by the sample 30 seconds after lifting the cone. Dry and weigh each empty container and subtract the weight so found from the gross weight to obtain the net weight.

B. Transfer the material from the plate, cone, and pan onto an eight-mesh sieve as prescribed in part 1555.5590, item A. The diameter of the sieve is eight inches if the quantity of the contents of the container is less than three pounds, and 12 inches if such quantity is three pounds or more. Set the sieve in a pan. Add enough water to bring the level within three-eighths inch to one-fourth inch of the top of the sieve. Gently wash the material on the sieve by combined up-and-down and circular motion for 30 seconds. Repeat washing with a second portion of water. Remove sieve from pan, incline to facilitate drainage, and drain for two minutes.

C. From the material remaining on the eight-mesh sieve count, but do not remove, the brown or black discolored kernels or pieces of kernel and calculate the number per two ounces of net weight. Remove pieces of silk more than one-half inch long, husk, cob, and other material which is not corn (i.e., peppers). Measure aggregate length of such pieces of silk and calculate the length per ounce of net weight. Spread the husk flat and measure its aggregate area and calculate the area per 20 ounces of net weight. Place all pieces of cob under a measured amount of water in a cylinder which is so graduated that the volume may be measured to 0.1 cubic centimeter. Take the increase in volume as the aggregate volume of the cob and calculate the volume of cob per 20 ounces of net weight. If the corn is cream-style corn (part 1555.5500, item D), take a representative 100-gram sample of the material remaining on the eight-mesh sieve (if such material weighs less than 100 grams take all of it) and determine the alcohol-insoluble solids as prescribed in part 1555.5590, item C for whole-kernel corn.

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

**1555.5610 LABEL STATEMENT OF SUBSTANDARD QUALITY.**

If the quality of canned corn falls below the standard prescribed in parts 1555.5570 and 1555.5580, the label shall bear the general statement of substandard quality specified in part 1550.0920, in the manner and form therein specified; however, if the quality of the canned corn falls below standard with respect to only one of the factors of quality specified by part 1555.5570, subpart 2 or 3, there may be substituted for the second line of such general statement of substandard quality, "good food—not high grade," a new line as specified after the item of this part corresponding to the item of part 1555.5570, subparts 2 and 3 which the canned corn fails to meet:

- A. "excessive discolored kernels";
- B. "excessive cob";
- C. "excessive husk";
- D. "excessive silk"; or
- E. "excessive liquid."

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

**1555.5620 STANDARD OF FILL OF CONTAINER FOR CANNED CORN WHERE CORN INGREDIENT IS FRITTER CORN, GROUND CORN, OR CREAM-STYLE CORN.**

The standard of fill of container for canned corn where the corn ingredient is in one of the forms known as fritter corn (part 1555.5500, item B), ground corn (part 1555.5500, item C), or cream-style corn (part 1555.5500, item D) is a fill of not less than 90 percent of the total capacity of the container, as determined by the general method for fill of containers prescribed in parts 1550.0900 and 1550.0910.

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

**1555.5630 LABEL STATEMENT OF SUBSTANDARD FILL.**

If canned fritter corn, canned ground corn, or canned cream-style corn falls below the standard of fill of container prescribed in part 1555.5620, the label shall bear the general statement of substandard fill specified in part 1550.0920, in the manner and form therein specified.

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

**1555.5640 CANNED FIELD CORN.**

Canned field corn conforms to the definition and standard of identity and is subject to the requirements for label statement of optional ingredients prescribed for canned corn by parts 1555.5490 to 1555.5560, except that the corn ingredient consists of succulent field corn or a mixture of succulent field corn and succulent sweet corn. The name of the food conforms to the name specified in parts 1555.5510 and 1555.5520, except that the words "corn," "sweet corn," and "sugar corn" are replaced by the words "field corn," and the term "golden field corn" is not used.

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

**1555.5650 CANNED FIELD CORN WHERE CORN INGREDIENT IS IN ONE OF THE FORMS KNOWN AS FRITTER FIELD CORN, GROUND FIELD CORN, OR CREAM-STYLE FIELD CORN.**

Each of the foods canned fritter field corn, canned ground field corn, and canned cream-style field corn conforms to the standard of fill of container and label statement of substandard fill prescribed for canned fritter corn, canned ground corn, and canned cream-style corn by parts 1555.5620 and 1555.5630.

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

**1555.5660 STANDARD FILL OF CONTAINER FOR CANNED MUSHROOMS.**

Subpart 1. **Description of standard.** The standard of fill of container for canned mushrooms is a fill such that the weight of drained mushrooms in a container the dimensions of which are specified in the table in subpart 2 is not less than the weight of drained mushrooms prescribed in such table for such container:



## Subp. 2. Table.

Trade designation	Overall Dimensions sealed can		Weight of drained mushrooms Ounces (avoirdupois)
	Diameter Inches	Height Inches	
202 x 204	2-1/8	2-1/4	2
211 x 212	2-11/16	2-3/4	4
300 x 400	3	4	8
307 x 510	3-7/16	5-5/8	16
603 x 700	6-3/16	7	68

Subp. 3. **Standard for unspecified container size.** The drained weight of mushrooms in containers of a size not specified in subpart 1 is not less than 56 percent of the water capacity of the container, if such water capacity is less than 11.0 ounces avoirdupois; not less than 59 percent of the water capacity of the container, if such water capacity is 11.0 ounces or more but less than 25 ounces avoirdupois; and not less than 62 percent of the water capacity of the container, if such water capacity is 25 ounces avoirdupois or more.

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

**1555.5670 DETERMINATION OF WATER CAPACITY OF CONTAINERS.**

Water capacity of containers is determined by the general method provided in parts 1550.0900 to 1550.0910.

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

**1555.5680 DETERMINATION OF DRAINED WEIGHT.**

Drained weight is determined by the following method. Tilt the opened container so as to distribute the contents evenly over the meshes of a circular sieve which has been previously weighed. The diameter of the sieve is eight inches if the quantity of contents of the container is less than three pounds, and 12 inches if such quantity is three pounds or more. The bottom of the sieve is woven-wire cloth which complies with the specifications for such cloth set forth under "2380 Micron (No. 8)" in Table 8 of "Standard Specifications for Sieves," published March 1, 1940, in L.C. 584 of the United States Department of Commerce, National Bureau of Standards.

Without shifting the material on the sieve, so incline the sieve as to facilitate drainage.

Two minutes after drainage begins, weigh the sieve and drained mushrooms. The weight so found, less the weight of the sieve, shall be considered to be the weight of drained mushrooms.

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

**1555.5690 LABEL STATEMENT OF SUBSTANDARD FILL.**

If the canned mushrooms fall below the applicable standard of fill of container prescribed in part 1555.5660, the label shall bear the general statement of substandard fill specified in part 1550.0920, in the manner and form therein specified.

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

**1555.5700 CANNED VEGETABLES OTHER THAN THOSE SPECIFICALLY REGULATED.**

The canned vegetables for which definitions and standards of identity are prescribed by parts 1555.5700 to 1555.5760 are those named in column I of the table set forth in part 1555.5710. The vegetable ingredient in each such canned vegetable is obtained by proper preparation from the succulent vegetable prescribed in column II of such table if two or more forms of such ingredient are designated in column III of such table, the vegetable in each such form is an optional ingredient.

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

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### 1555.5710 TABLE; IDENTITY OF OTHER CANNED VEGETABLES.

The table referred to in part 1555.5700 is as follows:

I	II	III
Name or synonym of Canned Vegetable	Source	Optional Forms of Vegetable Ingredient
Artichokes	Flower buds of the artichoke plant	Whole; half or halves or halved; whole hearts; halved hearts; quartered hearts
Asparagus	Edible portions of sprouts of the asparagus plant, as follows:  3-3/4 inches or more of upper end 3-3/4 inches or more of peeled upper end Not less than 2-3/4 inches but less than 3-3/4 inches of upper end Less than 2-3/4 inches of upper end Sprouts cut in pieces Sprouts from which the tip has been removed, cut in pieces	Stalks or spears  Peeled stalks or peeled spears Tips  Points  Cut stalks or cut spears Bottom cuts or cuts – tips removed
Bean sprouts Shelled beans	Sprouts of the Mung bean Seed shelled from green or wax bean pods, with or without snaps (pieces of immature unshelled pods)	
Lima beans or butter beans	Seed shelled from the pods of the lima bean plant	
Beets	Root of the beet plant	Whole; slices or sliced; quarters or quartered; dice or diced; cut; shoestring or French style or julienne
Beet greens	Leaves, or leaves and immature root, of the beet plant	
Broccoli	Heads of the broccoli plant	

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Brussels sprouts	Sprouts of the Brussels sprout plant	
Cabbage	Cut pieces of the heads of the cabbage plant	
Carrots	Root of the carrot plant	Whole; slices or sliced; quarters or quartered; dice or diced; cut; shoestring or French style or julienne
Cauliflower	Cut pieces of the head of the cauliflower plant	
Celery	Stalks of the celery plant	Cut; hearts
Collards	Leaves of the collard plant	
Dandelion	Leaves of the dandelion plant	
Kale	Leaves of the kale plant	
Mushrooms	Cap and stem of the mushroom	Buttons; whole; slices or sliced; pieces and stems
Mustard greens	Leaves of the mustard plant	
Okra	Pods of the okra plant	Whole; cut
Onions	Bulb of the onion plant	Whole; cut
Parsnips	Root of the parsnip plant	Whole; quarters or quartered; slices or sliced; cut; shoestring or French style or julienne
Black-eye peas or black-eyed peas	Seed shelled from pods of the black-eye pea plant, with or without snaps (pieces of immature unshelled pods)	
Field peas	Seed shelled from pods of the field pea plant (other than the black-eye	

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	pea plant), with or without snaps (pieces of immature unshelled pods)	
Green sweet peppers	Green pods of the sweet pepper plant	Whole; halves or halved; pieces
Red sweet peppers	Red-ripe pods of the sweet pepper plant	Whole; halves or halved; pieces
Pimientos or pimentos	Red-ripe pods of the pimiento or pimento, pepper plant	Whole; halves or halved; pieces
Potatoes	Tuber of the potato plant	Whole; slices or sliced; dice or diced; pieces; shoestring or French style or julienne
Sweet potatoes	Tuber of the sweet potato plant	Whole; pieces; mashed
Rutabagas	Root of the rutabaga plant	Whole; quarters or quartered; slices or sliced; dice or diced; cut
Salsify	Root of the salsify plant	
Spinach	Leaves of the spinach plant	
Swiss chard	Leaves of the Swiss chard plant	
Truffles	Fruit of the truffle	
Turnip greens	Leaves of the turnip plant	
Turnips	Root of the turnip plant	Whole; quarters or quartered; slices or sliced; dice or diced; cut

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

### 1555.5720 ADDITION OF WATER, ASPARAGUS JUICE, CITRIC ACID, OR VINEGAR.

To the vegetable ingredient water is added; except that pimientos may be canned with or without added water and sweet potatoes in mashed form are canned without added water and asparagus may be canned with added water, asparagus juice, or a mixture of both. For the purposes of parts 1555.5700 to 1555.5760, asparagus juice is the clear, unfermented liquid expressed from the washed and heated sprouts or parts of sprouts of the asparagus plant; mix-

tures of asparagus juice and water are considered to be water when such mixtures are used as a packing medium for canned asparagus. In the case of artichokes, citric acid or a vinegar is added in such quantity as to reduce the pH of the finished canned vegetable to 4.5 or below.

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

#### 1555.5730 OPTIONAL INGREDIENTS.

The following optional ingredients, in the case of the vegetables specified, may be added:

A. Citric acid or a vinegar, in the cases of all vegetables (except artichokes, in which such ingredient is prescribed and except canned mushrooms, in which no such ingredient is permitted), in a quantity not more than sufficient to permit effective processing by heat without discoloration or other impairment of the article.

B. An edible vegetable oil, in the cases of artichokes and pimientos.

C. In the case of potatoes, purified calcium chloride, calcium sulfate, calcium citrate, monocalcium phosphate, or any mixture of two or more such calcium salts, in a quantity reasonably necessary to firm the potatoes, but in no case in a quantity such that the calcium contained in any such calcium salt or mixture is more than 0.051 percent of the weight of the finished food.

D. Snaps, in the cases of shelled bean, black-eyed peas, and field peas.

E. Salt may be added to any of the canned vegetables in this rule in a quantity sufficient to season the food.

F. In the cases of all vegetables (except canned mushrooms), one or more of the following optional seasoning ingredients may be added in a quantity sufficient to season the food: a vinegar, spice, refined sugar (sucrose), and refined corn sugar (dextrose).

G. In the case of canned mushrooms, ascorbic acid (vitamin C) may be added in a quantity not to exceed 37.5 milligrams for each ounce of drained weight of mushrooms.

H. In the cases of all vegetables, monosodium glutamate may be added in a quantity sufficient to season the food.

The food is sealed in a container and so processed by heat as to prevent spoilage.

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

#### 1555.5740 NAME OF CANNED VEGETABLE.

The name of each canned vegetable for which a definition and standard of identity is prescribed by parts 1555.5700 to 1555.5760 is the name of any synonym thereof whereby such vegetable is designated in column I of the table in part 1555.5710.

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

#### 1555.5745 FORM OF VEGETABLE.

If two or more forms of the vegetable are specified in column III of the table in part 1555.5710, the label shall bear the specified word or words or in case synonyms are so specified, one of such synonyms, showing the form of the vegetable ingredient present.

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

#### 1555.5750 OPTIONAL INGREDIENTS LABELING.

Subpart 1. **Edible vegetable oil.** If the optional ingredient specified in part 1555.5730, item B is present, the label shall bear the statement “\_\_\_\_\_ oil added” or “with added \_\_\_\_\_ oil,” the blank being filled in with the common or usual name of oil.

Subp. 2. **Calcium salts.** If the optional ingredient specified in part 1555.5730, item C is present, the label shall bear the statement “trace of \_\_\_\_\_ added” or “with added trace of \_\_\_\_\_,” the blank being filled in with the words “calcium salt” or “calcium salts,” as the case may be or with the name or names of the particular calcium salt or salts added.

Subp. 3. **Snaps.** If the optional ingredient specified in part 1555.5730, item D is present, the label shall bear the statement “with snaps.”

Subp. 4. **Vinegar.** If a vinegar is present, the label shall bear the statement “seasoned with vinegar” or “seasoned with \_\_\_\_\_ vinegar,” the blank being filled in with the common or usual name of the vinegar.

Subp. 5. **Spice.** If spice is present, the label shall bear the statement "spice added" or "with added spice."

Subp. 6. **Vinegar, spice, and vegetable oil.** If a vinegar, spice, and vegetable oil or any two of these are present, the label may bear, in lieu of the statements prescribed in part 1555.5745 and this part, showing the presence of such ingredients, a combination of such statements, as for example, "with added cider vinegar, spice, and olive oil."

Subp. 7. **Asparagus juice.** If asparagus juice is used as a packing medium in canned asparagus, the label shall bear the statement "packed in asparagus juice."

Subp. 8. **Monosodium glutamate.** If monosodium glutamate is used, the label shall bear the statement "monosodium glutamate added" or "with added monosodium glutamate."

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

#### 1555.5760 PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.

Wherever the name of the vegetable appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the words and statements specified in parts 1555.5745 and 1555.5750 shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that the varietal name of the vegetable may so intervene.

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

### TOMATO PRODUCTS

#### 1555.5770 TOMATO JUICE.

"Tomato juice" is the unconcentrated liquid extracted from mature tomatoes of red or reddish varieties, with or without scalding, followed by draining. In the extraction of such liquid, heat may be applied by any method which does not add water thereto. Such liquid is strained free from skins, seeds, and other coarse or hard substances, but carries finely divided insoluble solids from the flesh of the tomato. Such liquid may be homogenized and may be seasoned with salt. When sealed in a container, it is so processed by heat, before or after sealing, as to prevent spoilage.

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

#### 1555.5780 YELLOW TOMATO JUICE.

"Yellow tomato juice" is the unconcentrated liquid extracted from mature tomatoes of yellow varieties. It conforms, in all other respects, to the definition and standard of identity for tomato juice prescribed in part 1555.5770.

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

#### 1555.5790 CATSUP, KETCHUP, CATCHUP.

"Catsup," "ketchup," "catchup" is the food prepared from one or any combination of two or all of the following optional ingredients:

- A. the liquid obtained from mature tomatoes of red or reddish varieties;
- B. the liquid obtained from the residue from preparing such tomatoes for canning, consisting of peelings and cores with or without such tomatoes or pieces thereof; and
- C. the liquid obtained from the residue from partial extraction of juice from such tomatoes.

Such liquid is obtained by so straining such tomatoes or residue, with or without heating, as to exclude skins, seeds, and other coarse or hard substances. It is concentrated and seasoned with salt, a vinegar or vinegars, spices or flavorings or both, and onions or garlic or both and is sweetened with sugar or a mixture of sugar and dextrose or a mixture of sugar (or sugar and dextrose) with corn syrup or dried corn syrup or both or with glucose syrup or dried glucose syrup or both, in such quantity that the weight of the solids of the corn syrup or dried corn syrup or both or glucose syrup or dried glucose syrup or both, is not more than one-third the weight of the solids of such mixture. When sealed in a container it is so processed by heat, before or after sealing, as to prevent spoilage.

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

**1555.5800 CORN SYRUP; GLUCOSE SYRUP AND DRIED GLUCOSE SYRUP.**

For the purposes of parts 1555.5790 to 1555.5820, the term "corn syrup" means refined corn syrup (including dried corn syrup) the solids of which contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose; and the term "glucose syrup" means a clarified, concentrated aqueous solution of the products obtained by the incomplete hydrolysis of any edible starch. The solids of glucose syrup contain not less than 40 percent by weight of reducing sugars calculated as anhydrous dextrose. "Dried glucose syrup" means the product obtained by drying "glucose syrup."

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

**1555.5820 LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

When optional ingredient specified in part 1555.5790, item B is present, in whole or in part, the label shall bear the statement "made from \_\_\_\_\_" (or "made in part from \_\_\_\_\_," as the case may be), "residual tomato material from canning." When optional ingredient specified in part 1555.5790, item C is present, in whole or in part, the label shall bear the statement "made from \_\_\_\_\_" (or "made in part from \_\_\_\_\_," as the case may be), "residual tomato material from partial extraction of juice." If both such ingredients are present, such statements may be combined in the statement "made from \_\_\_\_\_" (or "made in part from \_\_\_\_\_," as the case may be), "residual tomato material from canning and from partial extraction of juice." Wherever the name "catsup," "ketchup," or "catchup" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statement or statements specified in this part 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*

**1555.5830 TOMATO PUREE, TOMATO PULP.**

"Tomato puree," "tomato pulp" is the food prepared from one or any combination of two or all of the following optional ingredients:

- A. the liquid obtained from mature tomatoes of red or reddish varieties;
- B. the liquid obtained from the residue from preparing such tomatoes for canning, consisting of peelings and cores with or without such tomatoes or pieces thereof; and
- C. the liquid obtained from the residue from partial extraction of juice from such tomatoes.

Such liquid is obtained by so straining such tomatoes or residue, with or without heating, as to exclude skins, seeds, and other coarse or hard substances. It is concentrated and may be seasoned with salt. When sealed in a container it is so processed by heat, before or after sealing, as to prevent spoilage. It contains not less than 8.37 percent, but less than 25 percent, of salt-free tomato solids, as determined by the following method: determine total solids by the method prescribed on page 499 (Ed. note, 8th edition, 1955, page 570, section 30.2), under "Total Solids — Tentative," and sodium chloride by the method prescribed on page 500 (Ed. note, 8th edition, 1955, page 571, section 30.8 Title changed to "Sodium Chloride Method I — Official," under "Sodium Chloride — Official"), of "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," 4th edition, 1935. Subtract the percent of sodium chloride found from the percent of total solids found; the difference shall be considered to be the percent of salt-free tomato solids.

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

**1555.5840 LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

When optional ingredient specified in part 1555.5830, item B is present, in whole or in part, the label shall bear the statement, "made from \_\_\_\_\_" (or "made in part from \_\_\_\_\_," as the case may be) "residual tomato material from canning." When optional ingredient specified in part 1555.5830, item C is present, in whole or in part, the label shall bear the statement "made from \_\_\_\_\_" (or "made in part from \_\_\_\_\_," as the case may be) "residual tomato material from partial extraction of juice." If both such ingredients are present, such statements may be combined in the statement "made from \_\_\_\_\_" (or "made in part from \_\_\_\_\_," as the case may be), "residu-

al tomato material from canning and from partial extraction of juice." Wherever the name "tomato puree" or "tomato pulp" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statement or statements specified in this part, 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*

### 1555.5850 TOMATO PASTE.

Subpart 1. **Sources.** "Tomato paste" is the food prepared from one or any combination of two or all of the following optional ingredients:

- A. the liquid obtained from mature tomatoes of red or reddish varieties;
- B. the liquid obtained from the residue from preparing such tomatoes for canning, consisting of peelings and cores with or without such tomatoes or pieces thereof; and
- C. the liquid obtained from the residue from partial extraction of juice from such tomatoes.

Such liquid is obtained by so straining such tomatoes or residue, with or without heating, as to exclude skins, seeds, and other coarse or hard substances.

Subp. 2. **Seasoning.** It is concentrated and may be seasoned with one or more of the optional ingredients:

- A. Salt
- B. Spice
- C. Flavoring.

Subp. 3. **Baking soda.** It may contain, in such quantity as neutralizes a part of the tomato acids, the optional ingredient: baking soda.

Subp. 4. **Processing and solids.** When sealed in a container it is so processed by heat, before or after sealing, as to prevent spoilage. It contains not less than 25 percent of salt-free tomato solids, as determined by the following method: determine total solids by the method prescribed on page 499 (Ed. note, 8th edition, 1955, page 570, section 30.2), under "Total Solids — Tentative" and sodium chloride by the method prescribed on page 500 (Ed. note, 8th edition, 1955, page 571, section 30.8), under "Sodium Chloride — Official," of "Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists," 4th edition, 1935. Subtract the percent of sodium chloride found from the percent of total solids found; the difference shall be considered to be the percent of salt-free tomato solids.

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

### 1555.5860 LABEL STATEMENT OF OPTIONAL INGREDIENTS.

When optional ingredient specified in part 1555.5850, subpart 1, item B is present, in whole or in part, the label shall bear the statement "made from \_\_\_\_\_" (or "made in part from \_\_\_\_\_," as the case may be), "residual tomato material from canning." When optional ingredient specified in part 1555.5850, subpart 1, item C is present in whole or in part, the label shall bear the statement "made from \_\_\_\_\_," (or "made in part from \_\_\_\_\_," as the case may be), "residual tomato material from partial extraction of juice." If both such ingredients are present such statements may be combined in the statement "made from \_\_\_\_\_" (or "made in part from \_\_\_\_\_," as the case may be), "residual tomato material from canning and from partial extraction of juice." When optional ingredient specified in part 1555.5850, subpart 2, items B and C, is present the label shall bear the statement or statements, "spice added" or "with added spice," "flavoring added" or "with added flavoring," as the case may be. When optional ingredient specified in part 1555.5850, subpart 3 is present the label shall bear the statement "baking soda added." If two or all of the optional ingredients specified in part 1555.5850, subpart 2, items B and C, and subpart 3 are present such statements may be combined, as for example, "spice, flavoring, and baking soda added." In lieu of the word "spice" or "flavoring" in such statement or statements, the common or usual name of such spice or flavoring may be used.

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



**1555.5870 PLACEMENT OF LABEL STATEMENT OF OPTIONAL INGREDIENTS.**

Wherever the name "tomato paste" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statement or statements specified in part 1555.5860, 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*

**1555.5880 CANNED TOMATOES.**

Subpart 1. **Ingredients.** Canned tomatoes are mature tomatoes of red or reddish varieties which are peeled and cored and to which may be added one or more of the following optional ingredients:

- A. the liquid draining from such tomatoes during or after peeling and coring;
- B. the liquid strained from the residue from preparing such tomatoes for canning, consisting of peelings and cores with or without such tomatoes or pieces thereof;
- C. the liquid strained from mature tomatoes of such varieties;
- D. purified calcium chloride, calcium sulfate, calcium citrate, monocalcium phosphate, or any two or more of these calcium salts, in a quantity reasonably necessary to firm the tomatoes, but in no case such that the amount of the calcium contained in such salts is more than 0.026 percent of the weight of the finished canned tomatoes; and
- E. it may be seasoned with one or more of the optional ingredients:
  - (1) salt;
  - (2) spices; and
  - (3) flavoring.

It is sealed in a container and so processed by heat as to prevent spoilage.

Subp. 2. **Label statements.** When optional ingredient specified in subpart 1, item B is present, the label shall bear the statement "with added strained residual tomato material from preparation for canning." When one or more of the optional ingredients specified in subpart 1, item D is present the label shall bear the statement "trace of \_\_\_\_\_ added" or "with added trace of \_\_\_\_\_," the blank being filled in with the words "calcium salts" as the case may be or with the name or names of the particular calcium salt or salts added. When optional ingredient specified in subpart 1, item E, subitem 2 or 3 is present, the label shall bear the statement or statements "spice added" or "with added spice," "flavoring added" or "with added flavoring," as the case may be. If two or more of optional ingredients specified in subpart 1, items B and E, subitems 2 and 3 are present, such statements may be combined, as for example, "with added strained residual tomato material from preparation for canning, spice, and flavoring." In lieu of the word "spice" or "flavoring" in such statement or statements, the common or usual name of such spice or flavoring may be used. Wherever the name "tomatoes" appears on the label so conspicuously as to be easily seen under customary conditions of purchase, the statement or statements herein specified 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*

**1555.5890 STANDARD OF QUALITY FOR CANNED TOMATOES.**

The standard of quality for canned tomatoes is as follows:

A. The drained weight, as determined by the method prescribed in part 1555.5900, item A, is not less than 50 percent of the weight of water required to fill the container, as determined by the general method for water capacity of containers prescribed in part 1550.0900.

B. The strength and redness of color as determined by the method prescribed in part 1555.5900, item B, is not less than that of the blended color of any combination of the color discs described in such method, in which one-third the area of disc one and not more than one-third the area of disc two, is exposed.

C. Peel, per pound of canned tomatoes in the container, covers an area of not more than one square inch.

D. Blemishes, per pound of canned tomatoes in the container, cover an area of not more than one-fourth square inch.

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

#### **1555.5900 TESTING METHOD.**

Canned tomatoes shall be tested by the following method to determine whether or not they meet the requirements of part 1555.5890, items A and B:

A. Remove lid from container, but in the case of a container with lid attached by double seam, do not remove or alter the height of the double seam. Tilt the opened container so as to distribute the contents over the meshes of a circular sieve which has previously been weighed. The diameter of the sieve used is eight inches if the quantity of the contents of the container is less than three pounds or 12 inches if such quantity is three pounds or more. The meshes of such sieve are made by so weaving wire of 0.054 inch diameter as to form square openings 0.446 inch by 0.446 inch. Without shifting the tomatoes, so incline the sieve as to facilitate drainage of the liquid. Two minutes from the time drainage begins, weigh the sieve and drained tomatoes. The weight so found, less the weight of the sieve, shall be considered to be the drained weight.

B. Remove from the sieve the drained tomatoes obtained in item A. Cut out and segregate successively those portions of least redness until 50 percent of the drained weight, as determined under item A, has been so segregated. Comminate the segregated portions to a uniform mixture without removing or breaking the seeds. Fill the mixture into a black container to a depth of at least one inch. Free the mixture from air bubbles and skim off or press below the surface all visible seeds. Compare the color of the mixture, in full diffused daylight or its equivalent, with the blended color of combinations of the following concentric Munsell color discs of equal diameter or the color equivalents of such discs: red — Munsell 5 R 2.6/13 (glossy finish); yellow — Munsell 2.5 YR 5/12 (glossy finish); black — Munsell N 1/(glossy finish); grey — Munsell N 4 (mat finish).

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

#### **1555.6000 LABEL STATEMENT OF SUBSTANDARD QUALITY.**

If the quality of canned tomatoes falls below the standard prescribed in part 1555.5890, the label shall bear the general statement of substandard quality specified in part 1550.0920 in the manner and form therein specified; but in lieu of such general statement of substandard quality, the label may bear the alternative statement "below standard in quality \_\_\_\_\_," the blank to be filled in with the words specified after the corresponding number of each item of part 1555.5890 which such canned tomatoes fail to meet, as follows:

- A. "excessively broken up";
- B. "poor color";
- C. "excessive peel"; or
- D. "excessive blemishes."

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

#### **1555.6010 EXCESSIVE PEELS AND BLEMISHES.**

If such canned tomatoes fail to meet both items C and D of part 1555.5890, the words "excessive peel and blemishes" may be used instead of the words specified after the corresponding item letters in part 1555.6000. Such alternative statement shall immediately and conspicuously precede or follow, without intervening written, printed, or graphic matter, the name "tomatoes" and any statements required or authorized to appear with such name by part 1555.5880, subpart 2.

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

#### **1555.6020 STANDARD OF FILL OF CONTAINER FOR CANNED TOMATOES.**

The standard of fill of container for canned tomatoes is a fill of not less than 90 percent of the total capacity of the container, as determined by the general method for fill of containers prescribed in parts 1550.0900 to 1550.0910.

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

## 1555.6030 FOOD DEFINITIONS AND STANDARDS

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**1555.6030 LABEL STATEMENT OF SUBSTANDARD FILL.**

If canned tomatoes fall below the standard of fill of container prescribed in part 1555.6020, the label shall bear the general statement of substandard fill specified in part 1550.0920, in the manner and form therein specified.

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

**LIQUID HONEY****1555.6040 DEFINITIONS.**

Subpart 1. **Applicability.** The following definitions shall apply in the interpretation and enforcement of parts 1555.6040 to 1555.6320.

Subp. 2. **Crystallized honey.** "Crystallized honey" is honey that is solidly granulated or crystallized irrespective of whether "candied," "fondant," "creamed," or "spread" types of crystallized honey.

Subp. 3. **Honey.** "Honey" is the nectar and saccharine exudations of plants gathered, modified, and stored in the comb of honey bees; is levorotatory, contains not more than 25 percent of water, not more than 25/100 percent of ash, and not more than eight percent sucrose.

Subp. 4. **Honey house.** "Honey house" is a building or portion of a building in which honey is separated from the comb, processed, and packed.

Subp. 5. **Liquid honey.** "Liquid honey" is honey that has been separated from the comb by centrifugal force, gravity, straining, or by other means under sanitary conditions, and is free from visible crystals.

Subp. 6. **Partially crystallized honey.** "Partially crystallized honey" is honey that is a mixture of liquid honey and crystallized honey.

Subp. 7. **Person.** "Person" is any individual, partnership, corporation, or association.

**Statutory Authority:** *MS s 31.73*

**1555.6050 HONEY GRADES.**

No person shall sell or keep for sale liquid honey unless it has been graded according to the following grades promulgated by the commissioner of agriculture and labeled with the grade and the name and address of the producer, packer, or distributor which information shall be printed in letters not smaller than eight-point capitals except the grade which shall be printed in letters not smaller than 14-point boldface capitals.

**Statutory Authority:** *MS s 31.73*

**1555.6060 MINNESOTA GRADE AA PREMIUM HONEY.**

"Minnesota Grade AA premium honey" means honey that contains not more than 18.6 percent moisture. The color standard shall be water white or extra white as indicated by a Pfund reading of 17 millimeters or less. Such honey shall possess a good flavor for the predominant floral source or when blended, a good flavor for the blend of floral sources, shall be free from defects and of such quality with respect to clarity as to score not fewer than 90 points when scored in accordance with the scoring system outlined herein and shall further comply with the individual rules relating to flavor, absence from defects, and clarity.

**Statutory Authority:** *MS s 31.73*

**1555.6070 MINNESOTA GRADE A FANCY HONEY.**

"Minnesota Grade A fancy honey" means honey that contains not more than 18.6 percent of moisture. The color standard shall be white, as indicated by a Pfund reading of 18 to 30 millimeters. Such honey shall possess a good flavor for the predominant floral source or when blended, a good flavor for the blend of floral sources, shall be free from defects, shall be clear, and shall score not less than 90 points when scored in accordance with the scoring system outlined herein and shall further comply with the individual rules relating to flavor, absence from defects, and clarity.

**Statutory Authority:** *MS s 31.73*

**1555.6080 COLOR STANDARDS.**

Any honey of a quality that meets the standards set forth for Minnesota Grade A fancy honey or Minnesota Grade B choice honey, but fails to meet the color standards for those grades may be labeled as such providing such label also states the predominant floral source.

**Statutory Authority:** *MS s 31.73*

**1555.6090 MINNESOTA GRADE B CHOICE HONEY.**

“Minnesota Grade B choice honey” shall include honey that contains not more than 18.6 percent moisture. The color standard shall be extra light amber, as indicated by a Pfund reading of 30 to 50 millimeters. Such honey shall possess a reasonably good flavor for the predominant floral source or when blended, a reasonably good flavor for the blend of floral sources, shall be reasonably free from defects, shall be reasonably clear, and shall score not less than 80 points when scored in accordance with the scoring system outlined herein, and shall further comply with the individual rules relating to flavor, absence from defects, and clarity.

**Statutory Authority:** *MS s 31.73*

**1555.6100 MINNESOTA GRADE C STANDARD HONEY.**

“Minnesota Grade C standard honey” means honey which may contain up to 20 percent moisture and be of a color standard, light amber, amber, or dark amber. This grade shall include such honeys grading 50 millimeters or more on the Pfund grader. This honey shall possess a fairly good flavor for the predominant floral source or when blended, a fairly good flavor for the blend of floral sources, shall be fairly free from defects, and shall be of such quality with respect to clarity as to score not less than 70 points when scored in accordance with the scoring system outlined herein and shall further comply with the individual rules relating to flavor, absence from defects, and clarity.

**Statutory Authority:** *MS s 31.73*

**1555.6110 MINNESOTA GRADE D SUBSTANDARD HONEY.**

“Minnesota Grade D substandard honey” means honey fit for human consumption that fails to meet the standards set forth for Minnesota Grade C standard honey.

**Statutory Authority:** *MS s 31.73*

**1555.6120 MINNESOTA GRADE UTILITY HONEY.**

“Minnesota grade utility honey” means honey fit for human consumption in possession of and offered for sale by the original producer which has never been graded in accordance with any of the above grades. This grade shall apply only to honey in possession of and offered for sale by the original producer and any subsequent sale by another person shall be in accordance with the above specified grades.

**Statutory Authority:** *MS s 31.73*

**1555.6130 FACTOR RATING FOR FLAVOR, ABSENCE OF DEFECTS, AND CLARITY.**

The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical range for the rating of each factor is inclusive (for example) “27 to 30 points” means 27, 28, 29, or 30 points. The relative importance of each factor is expressed numerically on the scale of 100. The maximum number that may be given each factor is:

Factor	Points
Flavor	50
Absence of Defects	40
Clarity	10
Total Score	100

**Statutory Authority:** *MS s 31.73*

**1555.6140 GRADE FACTORS.**

Minnesota honey grades shall be ascertained after consideration of five factors affecting the grades. They are color, moisture, flavor, absence of defects, and clarity. The latter three are scored according to part 1555.6130.

**Statutory Authority:** *MS s 31.73*

**1555.6150 COLOR AND MOISTURE.**

The color of honey is one criterion of quality for the purpose of Minnesota standards for grading liquid honey. The color shall be determined by means of a satisfactory colorimeter for example, the United States Department of Agriculture permanent colored glass classifier or the Pfund grader. The color of crystallized honey or partially crystallized honey will be determined after the honey has been liquefied by heating to approximately 54.40 degrees Celsius (130 degrees Fahrenheit) and cooled to approximately 20 degrees Celsius (68 degrees Fahrenheit) before ascertaining the color. If the United States Department of Agriculture permanent colored glass color standards are used in determining the color of honey, such equipment shall be used in accordance with United States Department of Agriculture requirements.

**Statutory Authority:** *MS s 31.73*

**1555.6160 TABLE OF COLOR AND MOISTURE STANDARDS TO GRADE MINNESOTA HONEY.**

Grade	U.S.D.A., Color Standards	Pfund Scale (millimeter)	Moisture Content Not To Exceed
"Minnesota Grade AA Premium"	Water White and Extra White	17 or less	18.6%
"Minnesota Grade A Fancy"	White	17 to 30	18.6%
"Minnesota Grade B Choice"	Extra Light Amber	30 to 50	18.6%
"Minnesota Grade C Standard"	Light Amber, Amber, Dark Amber	50 and up	20. %

**Statutory Authority:** *MS s 31.73*

**1555.6170 FLAVOR.**

The factor of flavor refers to the prominence of the honey flavor and aroma and to its conformity to the flavor and aroma of the predominant floral source or blend of floral sources.

**Statutory Authority:** *MS s 31.73*

**1555.6180 GOOD FLAVOR.**

Honey that possesses a good flavor for the predominant floral source may be given a score of 45 to 50 points. "Good flavor for the predominant floral source" means that the product has a good, normal flavor and aroma for the predominant floral source or when blended, a good flavor for the blend of floral sources, and that the honey is free from caramelized flavor or objectionable flavor caused by fermentation, smoke, chemicals, or other causes with the exception of the predominant floral source.

**Statutory Authority:** *MS s 31.73*

**1555.6190 REASONABLY GOOD FLAVOR.**

If the honey possesses a reasonably good flavor for the predominant floral source, a score of 40 to 44 points may be given. Honey that falls into this classification shall not be

graded above Minnesota Grade B choice honey regardless of the total score for the product. This is a limiting rule. "Reasonably good flavor for the predominant floral source" means that the product has a reasonably good, normal flavor and aroma for the predominant floral source or when blended, a reasonably good flavor for the blend of floral sources and that the honey is practically free from caramelized flavor and is free from objectional flavor caused by fermentation, smoke, chemicals, or other causes with the exception of the predominant floral source.

**Statutory Authority:** *MS s 31.73*

#### **1555.6200 FAIRLY GOOD FLAVOR.**

Honey that possesses a fairly good flavor for the predominant floral source may be given a score of 35 to 39 points. Honey that falls into this classification shall not be graded above Minnesota Grade C standard honey regardless of the total score of the product. This is a limiting rule. "Fairly good flavor for the predominant floral source" means that the product has a fairly good, normal flavor and aroma for the predominant floral source or when blended, a fairly good flavor for the blend of floral sources and that the honey may possess a slightly caramelized flavor, is free from objectionable flavor caused by fermentation, smoke, chemicals, or other causes with the exception of the predominant floral source.

**Statutory Authority:** *MS s 31.73*

#### **1555.6210 OFF FLAVOR.**

Honey that fails to meet the requirements of Minnesota Grade C standard honey or is off flavor for any reason may be given a score of zero to 34 points and shall not be graded above Minnesota Grade D substandard honey regardless of the total score for the product. This is a limiting rule.

**Statutory Authority:** *MS s 31.73*

#### **1555.6220 ABSENCE OF DEFECTS.**

The factor of absence of defects refers to the degree of cleanliness and to the degree of freedom from particles of comb, propolis, and other defects which may be in suspension or deposited as sediment in the container.

**Statutory Authority:** *MS s 31.73*

#### **1555.6230 HONEY FREE FROM DEFECTS.**

Honey that is free from defects may be given a score of 37 to 40 points. Honey that falls into this classification may be graded Minnesota Grade AA premium honey or Minnesota Grade A fancy honey. "Free from defects" means that the honey contains no defects that affect the appearance or edibility of the product and shall be at least as free from defects as honey that has been strained through a standard No. 80 sieve, at a temperature of not more than 54.4 degrees Celsius (130 degrees Fahrenheit).

**Statutory Authority:** *MS s 31.73*

#### **1555.6240 HONEY REASONABLY FREE FROM DEFECTS.**

If the honey is reasonably free from defects, a score of 34 to 36 points may be given. Honey that falls into this classification shall not be graded above Minnesota Grade B choice honey regardless of the total score for the product. This is a limiting rule. "Reasonably free from defects" means that the honey may contain defects which do not materially affect the appearance or edibility of the product and shall be at least as free from defects as honey that has been strained through a standard No. 50 sieve, at a temperature of not more than 54.4 degrees Celsius (130 degrees Fahrenheit).

**Statutory Authority:** *MS s 31.73*

#### **1555.6250 HONEY FAIRLY FREE FROM DEFECTS.**

Honey that is fairly free from defects may be given a score of 31 to 33 points. Honey that falls into this classification shall not be graded above Minnesota Grade C standard honey regardless of the total score for the product. This is a limiting rule. "Fairly free from defects" means that the honey may contain defects which may be noticeable but shall be at least as free

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from defects as honey that has been strained through a standard No. 18 sieve, at a temperature of not more than 54.4 degrees Celsius (130 degrees Fahrenheit).

**Statutory Authority:** *MS s 31.73*

**1555.6260 HONEY THAT FAILS TO MEET THE REQUIREMENTS OF MINNESOTA GRADE C STANDARD HONEY.**

Honey that fails to meet the requirements of Minnesota Grade C standard honey may be given a score of zero to 29 points and shall not be graded above Minnesota Grade D substandard honey regardless of the total score for the product. This is a limiting rule.

**Statutory Authority:** *MS s 31.73*

**1555.6270 CLARITY.**

The factor of clarity has reference to the degree of freedom from air bubbles, pollen grains, or fine particles of any material which might be suspended in the product.

**Statutory Authority:** *MS s 31.73*

**1555.6280 CLEAR HONEY.**

Honey that is clear may be given a score of eight to ten points. "Clear" means that the honey may contain air bubbles which do not materially affect the appearance of the product and may contain a trace of pollen grains or other finely divided particles of suspended material which do not affect the appearance of the product.

**Statutory Authority:** *MS s 31.73*

**1555.6290 REASONABLY CLEAR HONEY.**

If the honey is reasonably clear, a score of six to seven points may be given. Honey that falls into this classification shall not be graded above Minnesota Grade B choice honey regardless of the total score for the product. This is a limiting rule. "Reasonably clear" means that the honey may contain air bubbles, pollen grains, or other finely divided particles of suspended material which do not materially affect the appearance of the product.

**Statutory Authority:** *MS s 31.73*

**1555.6300 FAIRLY CLEAR HONEY.**

Honey that is fairly clear may be given a score of four to five points. Honey that falls into this classification shall not be graded above Minnesota Grade C standard honey regardless of the total score for the product. This is a limiting rule. "Fairly clear" means that the appearance of the honey may be materially but not seriously affected by the presence of air bubbles, pollen grains, or other finely divided particles of suspended material.

**Statutory Authority:** *MS s 31.73*

**1555.6310 HONEY THAT FAILS TO MEET THE REQUIREMENTS OF MINNESOTA GRADE C STANDARD HONEY.**

Honey that fails to meet the requirements of Minnesota Grade C standard honey may be given a score of zero to three points and shall not be graded above Minnesota Grade D substandard honey regardless of the total score for the product. This is a limiting rule.

**Statutory Authority:** *MS s 31.73*

**1555.6320 REQUIREMENT FOR GRADES WHEN HONEY IS ADVERTISED AT A PRICE.**

Any advertisement of honey at a given price shall plainly and conspicuously indicate the grade of honey.

**Statutory Authority:** *MS s 31.73*

## APPLES

**1555.6330 DEFINITIONS.**

Subpart 1. **Mature.** "Mature" means that the apples have reached the stage of growth which will ensure the proper completion of the ripening process. Before a mature apple becomes overripe it will show varying degrees of firmness, depending upon the stage of the ripening process. The following terms are used for describing these different stages of firmness of apples.

A. "Hard" means apples with a tenacious flesh and starchy flavor. Apples at this stage are suitable for storage and long-distance shipment.

B. "Firm" means apples with a tenacious flesh but which are becoming crisp with a slight starchy flavor, except the Delicious variety. Apples at this stage are also suitable for storage and long-distance shipment.

C. "Firm ripe" means apples with crisp flesh except that the flesh of the apples of the Gano, Ben Davis, and Rome Beauty varieties may be slightly mealy. Apples at this stage may be shipped long distances but should be moved into consumption within a short period of time.

D. "Ripe" means apples with mealy flesh and soon to become soft for the variety. Apples at this stage should be moved immediately into consumption.

Subp. 2. **Overripe.** "Overripe" means apples which are dead ripe, with flesh very mealy or soft and past commercial utility.

Subp. 3. **Carefully hand-picked.** "Carefully hand-picked" means that the apples do not show evidence of rough handling or of having been on the ground.

Subp. 4. **Clean.** "Clean" means that the apples are free from excessive dirt, dust, spray residue, and other foreign material.

Subp. 5. **Well formed.** "Well formed" means that the apple has the normal shape characteristic of the variety, except that the shape may be slightly irregular, provided, it does not detract from the general appearance of the apple.

Subp. 6. **Injury.** "Injury" means any defect which more than slightly affects the appearance, or the edible or shipping quality of the apples.

A. Russetting in the stem cavity or calyx basin which cannot be seen when the apple is placed stem end or calyx end down on a flat surface, shall not be considered in determining whether or not an apple is injured by russetting, except that rough or bark-like russetting in the stem cavity or calyx basin shall be considered as injury when the appearance of the apple is materially affected. The following types and amounts of russetting outside of the stem cavity or calyx basin, shall be considered as injury:

(1) smooth, net-like russetting, when an aggregate area of more than five percent of the surface is covered and the color of the russetting shows no very pronounced contrast with the background color of the apple or lesser amounts of more conspicuous net-like russetting when the appearance is affected to a greater extent than the above amount permitted;

(2) smooth, solid russetting which covers an aggregate area of more than one-half inch in diameter and the pattern and color of the russetting shows no very pronounced contrast with the background color of the apple or lesser amounts of more conspicuous solid russetting when the appearance is affected to a greater extent than the above amount permitted (see part 1555.6365);

(3) slightly rough russetting which covers an aggregate area of more than one-fourth inch in diameter (see part 1555.6365);

(4) rough russetting, unless it is well within the stem cavity or calyx basin and is not readily apparent.

B. Any one of the following defects or any combination thereof the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as injury:

(1) sunburn or spray burn, when the discolored area does not blend into the normal color of the fruit;



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(2) dark brown or black limb rubs which affect a total area of more than one-eighth inch in diameter, except that light brown limb rubs of a russet character shall be considered under the definition of injury by russetting in item A (see part 1555.6365);

(3) hail marks, drought spots, or other similar depressions or scars where there is appreciable discoloration other than russetting or when the indentations are not superficial or when an individual indentation exceeds one-eighth inch in diameter or the total affected area exceeds one-fourth inch in diameter (see part 1555.6365);

(4) stem or calyx cracks which are not well healed or well healed stem or calyx cracks which exceed a length of one-eighth inch;

(5) diseases: cedar rust infection which affects a total area of more than one-eighth inch in diameter (see part 1555.6365); sooty blotch or fly speck which is thinly scattered over more than five percent of the surface or dark, heavily concentrated spots which affect an area of more than one-fourth inch in diameter (see part 1555.6365); red skin spots which are thinly scattered over more than one-tenth of the surface or dark, heavily concentrated spots which affect an area of more than one-fourth inch in diameter (see part 1555.6365);

(6) insects: Any healed sting or healed stings which affect a total area of more than one-eighth inch in diameter including any encircling discolored rings (see part 1555.6365); and worm holes.

Subp. 7. **Fairly well formed.** "Fairly well formed" means that the apple may be slightly abnormal in shape but not to an extent which detracts materially from its appearance.

**Statutory Authority:** *MS s 30.55*

**1555.6340 DAMAGE.**

"Damage" means any defect which materially affects the appearance or the edible or shipping quality of the apples.

A. Russetting in the stem cavity or calyx basin which cannot be seen when the apple is placed stem end or calyx end down on a flat surface shall not be considered in determining whether or not an apple is damaged by russetting, except that excessively rough or bark-like russetting in the stem cavity or calyx basin shall be considered as damage when the appearance of the apple is materially affected. The following types and amounts of russetting outside of the stem cavity or calyx basin shall be considered as damage:

(1) russetting which is excessively rough on Roxbury Russet and other similar varieties;

(2) smooth net-like russetting, when an aggregate area of more than 15 percent of the surface is covered and the color of the russetting shows no very pronounced contrast with the background color of the apple or lesser amounts of more conspicuous net-like russetting when the appearance is affected to a greater extent than the above amount permitted;

(3) smooth solid russetting, when an aggregate area of more than five percent of the surface is covered and the pattern and color of the russetting shows no very pronounced contrast with the background color of the apple or lesser amounts of more conspicuous solid russetting when the appearance is affected to a greater extent than the above amount permitted;

(4) slightly rough russetting which covers an aggregate area of more than one-half inch in diameter (see part 1555.6365);

(5) rough russetting which exceeds one-fourth inch in diameter, unless it is well within the stem cavity or calyx basin and is not readily apparent (see part 1555.6365).

B. Any one of the following defects or any combination thereof the seriousness of which exceeds the maximum allowed for any one defect shall be considered as damage:

(1) sunburn or spray burn which has caused blistering or cracking of the skin or when the discolored area does not blend into the normal color of the fruit unless the injury can be classed as russetting;

(2) limb rubs which affect a total area of more than one-half inch in diameter, except that light brown limb rubs of a russet character shall be considered under the definition of damage by russetting in part 1555.6330, subpart 6, item A (see part 1555.6365);

(3) hail marks, drought spots, or other similar depressions or scars which are not superficial or when such injury affects a total area of more than one-half inch in diameter (see part 1555.6365);

(4) stem or calyx cracks which are not well-healed or well-healed stem or calyx cracks which exceed an aggregate length of one-fourth inch;

(5) diseases: scab spots which affect a total area of more than one-fourth inch in diameter (see part 1555.6365); cedar rust infection which affects a total area of more than one-fourth inch in diameter (see part 1555.6365); sooty blotch or fly speck which is thinly scattered over more than one-tenth of the surface or dark, heavily concentrated spots which affect an area of more than one-half inch in diameter (see part 1555.6365); and red skin spots which are thinly scattered over more than one-tenth of the surface or dark, heavily concentrated spots which affect an area of more than one-half inch in diameter (see part 1555.6365);

(6) insects: any healed sting or healed stings which affect a total area of more than 3/16 inch in diameter including any encircling discolored rings (see part 1555.6365); and worm holes.

**Statutory Authority:** *MS s 30.55*

**1555.6350 SERIOUSLY DEFORMED.**

“Seriously deformed” means that the apple is so badly misshapen that its appearance is seriously affected.

**Statutory Authority:** *MS s 30.55*

**1555.6360 SERIOUS DAMAGE.**

“Serious damage” means any defect which seriously affects the appearance or the edible or shipping quality of the apples.

A. The following types and amounts of russeting shall be considered as serious damage: smooth solid russeting, when more than one-half of the surface in the aggregate is covered, including any russeting in the stem cavity or calyx basin or slightly rough or excessively rough or bark-like russeting which detracts from the appearance of the fruit to a greater extent than the amount of smooth solid russeting permitted; provided, that any amount of russeting shall be permitted on Roxbury Russet and other similar varieties.

B. Any one of the following defects or any combination thereof the seriousness of which exceeds the maximum allowed for any one defect shall be considered as serious damage:

(1) sunburn or spray burn which seriously detracts from the appearance of the fruit;

(2) limb rubs which affect more than one-tenth of the surface in the aggregate;

(3) hail marks, drought spots or scars if they materially deform or disfigure the fruit, or if such defects affect more than one-tenth of the surface in the aggregate; provided, that no hail marks which are unhealed shall be permitted and not more than an aggregate area of one-half inch shall be allowed for well-healed hail marks where the skin has been broken (see part 1555.6365);

(4) stem or calyx cracks which are not well-healed or well-healed stem or calyx cracks which exceed an aggregate length of one-half inch;

(5) visible water core which affects an area of more than one-half inch in diameter;

(6) diseases: scab spots which affect a total area of more than three-fourths inch in diameter (see part 1555.6365); cedar rust infection which affects a total area of more than three-fourths inch in diameter (see part 1555.6365); sooty blotch or fly speck which affects more than one-third of the surface; red skin spots which affect more than one-third of the surface; and bitter pit and Jonathan spot which is thinly scattered over more than one-tenth of the surface and does not materially deform or disfigure the fruit;

(7) insects: healed stings which affect a total area of more than one-fourth inch in diameter including any encircling discolored rings (see part 1555.6365); and worm holes.

**Statutory Authority:** *MS s 30.55*

**1555.6365 AREA.**

In designated area measurements in parts 1555.6330 to 1555.6360, the area refers to that of a circle of the specified diameter.

**Statutory Authority:** *MS s 30.55*

**1555.6370 APPLICABILITY.**

The provisions of parts 1555.6330 to 1555.6530 shall not be applicable to any apples bearing a grade 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 apple labeling equal to or in excess of the standards and quality required by the state of Minnesota.

**Statutory Authority:** *MS s 30.55*

**1555.6380 APPLES NOT MEETING GRADE REQUIREMENTS.**

All apples which fail to meet the requirements of Minnesota extra fancy, Minnesota fancy, Minnesota No. 1, Minnesota No. cookers, Minnesota No. early, Minnesota No. 2, and Minnesota hair grade shall be conspicuously marked with a label bearing the word "utility." Letters of size not less than three-fourths inch height shall be conspicuously printed or stamped on the container.

**Statutory Authority:** *MS s 30.55*

**1555.6390 GRADES.**

Subpart 1. **Minnesota extra fancy.** Minnesota extra fancy consists of apples of one variety which are: mature, but not overripe; carefully hand-picked; clean; well formed; and free from decay, internal browning, internal breakdown, scald, scab, bitter pit, Jonathan spot, freezing injury, broken skins and bruises (except those that are slight and incident to proper handling and packing), and visible water core. The apples also shall be free from injury caused by russeting, sunburn or spray burn, limb rubs, hail, drought spots, scars, stem or calyx cracks, other diseases, insects, or mechanical or other means. Each apple of this grade shall have the amount of color specified hereinafter for the variety. (See parts 1555.6400 to 1555.6490.)

Subp. 2. **Minnesota fancy.** Minnesota fancy consists of apples of one variety which are mature, but not overripe; carefully hand-picked; clean; fairly well-formed; and free from decay, internal browning, internal breakdown, bitter pit, Jonathan spot, scald, freezing injury, broken skins and bruises (except those incident to proper handling and packing) and visible water core. The apples also shall be free from damage caused by russeting, sunburn or spray burn, limb rubs, hail, drought spots, scars, stem or calyx cracks, other diseases, insects, or mechanical or other means. Each apple of this grade shall have the amount of color specified hereinafter for the variety. (See parts 1555.6400 to 1555.6490.)

Subp. 3. **Minnesota No. 1.** Minnesota No. 1 consists of apples meeting the same requirements as Minnesota fancy except for color and russeting. In this grade less color is required for all varieties except yellow and green varieties, for which the requirements for both grades are the same. Apples of this grade shall be free from excessive damage caused by russeting which means that they shall meet the russeting requirements for Minnesota fancy as defined under the definitions of "damage by russeting," part 1555.6340; provided, that the aggregate area of an apple which may be covered by smooth net-like russeting shall not exceed 25 percent; and further provided, that the aggregate area of an apple which may be covered by smooth solid russeting shall not exceed ten percent. (See parts 1555.6400 to 1555.6490.)

Subp. 4. **Minnesota No. 1 cookers.** Minnesota No. 1 cookers consists of apples of one variety which meet the requirements of Minnesota No. 1 grade except as to color. This grade is provided for apples which are mature but which may not have sufficient color to meet the specifications of Minnesota No. 1. (See parts 1555.6450 to 1555.6490.)

**Subp. 5. Minnesota No. 1 early.** Minnesota No. 1 early consists of apples of one variety which meet the requirements of Minnesota No. 1 grade except as to color, maturity, and size. Apples of this grade have no color requirements, need not be mature, and shall be not less than two inches in diameter. This grade is provided for varieties such as Duchess, Gravenstein, Red June, Twenty Ounce, Wealthy, Williams, Yellow Transparent and Lodi, or other varieties which are normally marketing during the summer months. (See parts 1555.6450 to 1555.6490.)

**Subp. 6. Minnesota No. 2.** Minnesota No. 2 consists of apples of one variety which are mature, but not overripe; carefully hand-packed; not seriously deformed; free from decay, internal browning, internal breakdown, scald, and freezing injury. The apples also shall be free from serious damage caused by dirt or other foreign matter, broken skins, bruises, russetting, sunburn, spray burn, limb rubs, hail, drought spots, scars, stem or calyx cracks, visible water core, other diseases, insects, or mechanical or other means. (See parts 1555.6450 to 1555.6490.)

**Subp. 7. Combination grades.** Combinations of the above grades can be used as follows: combination Minnesota extra fancy and Minnesota fancy; combination Minnesota fancy and Minnesota No. 1; and combination Minnesota No. 1 and Minnesota No. 2. Combinations other than these are not permitted in connection with the Minnesota apple grades. When combination Minnesota extra fancy and Minnesota fancy is packed, at least 25 percent of the apples in any lot shall meet the requirements of the higher grade in the combination. When combination Minnesota fancy and Minnesota No. 1 or combination Minnesota No. 1 and Minnesota No. 2 is packed, at least 50 percent of the apples in any lot shall meet the requirements of the higher grade in the combination. (See parts 1555.6400 to 1555.6490.)

**Subp. 8. Minnesota hail grade.** Minnesota hail grade consists of apples which meet the requirements of Minnesota No. 1 grade except that hail marks where the skin has not been broken and well-healed hail marks where the skin has been broken shall be permitted, provided the apples are fairly well formed. (See parts 1555.6400 to 1555.6490.)

**Statutory Authority:** *MS s 30.55*

#### **1555.6400 COLOR REQUIREMENTS.**

In addition to the requirements specified for the above grades, apples of these grades shall have the percentage of color specified for the variety in part 1555.6430.

**Statutory Authority:** *MS s 30.55*

#### **1555.6410 SOLID RED VARIETIES.**

For the solid red varieties the percentage stated refers to the area of the surface which must be covered with a good shade of solid red characteristic of the variety; provided, that an apple having color of a lighter shade of solid red or striped red than that considered as a good shade of red characteristic of the variety may be admitted to a grade, provided it has sufficient additional area covered so that the apple has as good an appearance as one with the minimum percentage of good red characteristic of the variety required for the grade.

**Statutory Authority:** *MS s 30.55*

#### **1555.6420 STRIPED RED VARIETIES.**

For the striped red varieties the percentage stated refers to the area of the surface in which the stripes of a good shade of red characteristic of the variety shall predominate over stripes of lighter red, green, or yellow. However, an apple having color of a lighter shade than that considered as a good shade of red characteristic of the variety may be admitted to a grade; provided, that it has sufficient additional area covered so that the apple has as good an appearance as one with the minimum percentage of stripes of a good red characteristic of the variety required for the grade. Faded brown stripes shall not be considered as color except in the case of the Gray Baldwin variety.

**Statutory Authority:** *MS s 30.55*

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### 1555.6430 COLOR REQUIREMENTS FOR SPECIFIED MINNESOTA GRADES OF APPLES, BY VARIETIES.

Variety	Minnesota Extra Fancy	Minnesota Fancy	Minnesota Number 1
	Percent	Percent	Percent
<b>Solid Red:</b>			
Beacon	75	50	25
Black Ben	75	50	25
Gano	75	50	25
Lakeland	75	50	25
Minjon	75	50	25
Redwell	75	50	25
Winesap	75	50	25
Other similar varieties <sup>1</sup>	75	50	25
Red Sport varieties <sup>2</sup>	75	50	25
<b>Striped or partially red:</b>			
Cortland	66	33	25
Fireside	66	33	25
Haralson	66	33	25
Jonathan	66	33	25
McIntosh	66	33	25
Melba	66	33	25
Prairie Spy	66	33	25
Other similar varieties <sup>3</sup>	66	33	25
Baldwin	50	25	15
Ben Davis	50	25	15
Delicious	50	25	15
Early McIntosh	50	25	15
Mammoth Black Twig	50	25	15
Northern Spy	50	25	15
Rome Beauty	50	25	15
Stayman	50	25	15
Turley	50	25	15
Wagener	50	25	15
Wealthy	50	25	15
Willow Twig	50	25	15
York Imperial	50	25	15
Other similar varieties <sup>4</sup>	50	25	15
Hubbardston	50	15	10
Stark	50	15	10
Other similar varieties <sup>5</sup>	50	15	10
Red June	50	15	5
Williams	50	15	5
Other similar varieties	50	15	5
Duchess	25	10	5
Gravenstein	25	10	5
Other similar varieties <sup>6</sup>	25	10	5
Yellow varieties	7	7	7
Golden Delicious	8	8	8

<sup>1</sup>Arkansas Black, Detroit Red, Esopus Spitzenburg, King David, Lowry.

<sup>2</sup>When Red Sport varieties are specified as such they shall meet the color requirements specified for Red Sport varieties.

<sup>3</sup>Kendall, Macoun, Snow (Fameuse), Jewell Winter, Victory.

<sup>4</sup>Bonum, Limbertwig, Milton, Nero, Paragon.

<sup>5</sup>Tinge of color.

<sup>6</sup>Red Astrachan, Smokehouse, Summer Rambo, Oriole.

<sup>7</sup>Characteristic ground color.

<sup>8</sup>75 percent characteristic color.

NOTE: "Characteristic color", when the white around the lenticels predominates over the green color, creating a mottling effect on the surface of the apple, it shall be considered as the minimum characteristic color.

**Statutory Authority:** *MS s 30.55*

#### **1555.6440 UTILITY DESIGNATION.**

Utility consists of apples which are not graded in conformity with any of the foregoing grades. The term "utility" is not a grade within the meaning of these standards but is provided as a designation to show that no definite grade has been applied to the lot.

**Statutory Authority:** *MS s 30.55*

#### **1555.6450 TOLERANCES.**

In order to allow for variations incident to proper grading and handling, not more than a total of ten percent of the apples in any lot may fail to meet the requirements of the grade; provided, that not more than one-half of this amount, or five percent, shall be allowed for apples which are seriously damaged by insects and including not more than one percent for apples affected by decay or internal breakdown or both.

**Statutory Authority:** *MS s 30.55*

#### **1555.6460 APPLYING TOLERANCES.**

When applying the foregoing tolerances to combination Minnesota extra fancy and Minnesota fancy grade, no part of any tolerance shall be allowed to reduce, for the lot as a whole, the 25 percent of apples of the higher grade required in the combination, but individual containers shall have not less than 15 percent of the higher grade.

When applying the foregoing tolerances to combination Minnesota fancy and Minnesota No. 1 grade and to combination Minnesota No. 1 and Minnesota No. 2 grade, no part of any tolerance shall be allowed to reduce, for the lot as a whole, the 50 percent of apples of the higher grade required in the combination, but individual containers shall have not less than 40 percent of the higher grade.

**Statutory Authority:** *MS s 30.55*

#### **1555.6470 CONTENTS OF INDIVIDUAL PACKAGES IN A LOT.**

The contents of individual packages in the lot, based on sample inspection, are subject to the following limitations, provided the averages for the entire lot are within the tolerances specified for the grade:

A. for packages which contain more than ten pounds and a tolerance of ten percent or more is provided (as in the case of size, where a tolerance of 15 percent is provided) individual packages in any lot shall have not more than 1-1/2 times the tolerance specified;

B. for packages which contain more than ten pounds and a tolerance of less than ten percent is provided, individual packages in any lot shall have not more than double the tolerance specified, except that at least one apple which is seriously damaged by insects or affected by decay or internal breakdown may be permitted in any package;

C. for packages which contain ten pounds or less, individual packages in any lot are not restricted as to the percentage of defects; provided, that not more than one apple which is seriously damaged by insects or affected by decay or internal breakdown may be permitted in any package.

**Statutory Authority:** *MS s 30.55*

**1555.6480 BASIS OF CALCULATING PERCENTAGES.**

When the numerical count is marked on the container, percentages shall be calculated on the basis of count. When the minimum diameter or minimum and maximum diameters are marked on the container, percentages shall be calculated on the basis of weight. When the apples are in bulk, percentages shall be calculated on the basis of weight.

**Statutory Authority:** *MS s 30.55*

**1555.6490 CONDITION AFTER STORAGE OR TRANSIT.**

Decay, scald, or any other deterioration which may have developed on apples after they have been in storage or transit shall be considered as affecting condition and not the grade.

**Statutory Authority:** *MS s 30.55*

**1555.6500 SIZE REQUIREMENTS.**

The size of the apples packed in a closed container shall be indicated on the container. The minimum size shall be plainly stamped, stenciled, or otherwise marked on the container in terms of whole inches, whole and half inches, whole and quarter inches, or whole and eighth inches, as 2-1/2 inches minimum, 2-1/4 inches minimum, or 2-5/8 inches minimum, in accordance with the facts.

**Statutory Authority:** *MS s 30.55*

**1555.6510 MEASUREMENT FOR MINIMUM SIZE.**

The measurement for minimum size shall be the largest diameter of the apple taken at right angles to a line from the stem end to the blossom end. The measurement for maximum size shall be the smallest dimension of the apple determined by passing the apple through a round opening.

**Statutory Authority:** *MS s 30.55*

**1555.6520 VARIATIONS.**

In order to allow for variations incident to proper sizing, not more than five percent of the apples in any lot may not meet the size requirements; provided, that when the maximum and minimum sizes are both stated, an additional ten percent tolerance shall be allowed for apples which are larger than the maximum size stated.

**Statutory Authority:** *MS s 30.55*

**1555.6530 SUGGESTED ABBREVIATIONS FOR MARKING CONTAINERS.**

In order to conserve space, abbreviations may be used for marking Minnesota grade names on containers. The following abbreviations are suggested where it is not desired to use the full grade name: Minn. Ex. Fcy. for Minnesota Extra Fancy; Minn. Fcy. for Minnesota Fancy; Minn. No. 1 for Minnesota No. 1; Minn. No. 2 for Minnesota No. 2. Combination grades may be designated by abbreviations of the grades preceded by the abbreviation "Comb." as "Comb. Minn. Fcy — Minn. No. 1."

**Statutory Authority:** *MS s 30.55*

**POTATOES****1555.6540 DEFINITIONS.**

**Subpart 1. Artificially colored.** The term "artificially colored" when used to refer to potatoes shall mean and include the addition of any substance or material to the surface of potatoes or to transparent containers in which potatoes are displayed for sale which changes the appearance of said potatoes.

**Subp. 2. Clean.** "Clean" means that the individual potato is practically free from dirt or staining and practically no loose dirt or other foreign matter is present in the container.

**Subp. 3. Closed container or package.** "Closed container or package" means any container so secured that a prospective purchaser is unable to make a selection of individual potatoes from its contents.

**Subp. 4. Damage.** "Damage," unless otherwise specifically defined in this part, means any defect which materially affects the edible or shipping quality, or the internal or external

appearance of the individual potato, or any external defect which cannot be removed without a loss of more than five percent of the total weight of the potato including peel covering the defective area. Any one of the following defects, or any combination of defects the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

A. dirt or other foreign matter when the individual potato is more than slightly dirty or slightly stained, or when more than a moderate amount of loose dirt or other foreign matter is present in the container;

B. sunburn when the discoloration extends into the flesh to such an extent that it cannot be removed without a loss of more than five percent of the total weight of the potato including peel covering the affected area;

C. greening caused by exposure to natural or artificial light when the appearance of the individual potato is materially affected by yellowish or greenish surface discoloration, or when discoloration extends into the flesh of the potato and cannot be removed without a loss of more than five percent of the total weight of the potato including peel covering the defective area;

D. second growth which materially affects the appearance of the individual potato;

E. growth cracks which materially affect the appearance of the individual potato;

F. air cracks which are deep, or shallow air cracks which materially affect the appearance of the individual potato;

G. hollow heart which materially affects the internal appearance of the potato cut longitudinally;

H. internal discoloration, any part of which affects the vascular ring or occurs between the ring and the skin of the potato when the discoloration cannot be removed without a loss of more than five percent of the total weight of the potato including peel covering the defective area, or discoloration occurring entirely within the area bounded by the vascular ring when there is more than the equivalent of three scattered light brown spots one-eighth inch in diameter in a round or intermediate type potato 2-1/2 inches in diameter or in a long type potato six ounces in weight, or correspondingly lesser or greater numbers of spots on smaller or larger potatoes;

I. external discoloration when the appearance of the potato is materially affected;

J. shriveling when the potato is more than moderately shriveled, spongy, or flabby;

K. sprouting when more than ten percent of the potatoes in the lot have external sprouts over three-fourths inch in length, or when the removal of an ingrown sprout causes a loss of more than five percent of the total weight of the potato including peel covering the defective area;

L. scab when surface scab shows no pronounced contrast with the background color of the potato and the aggregate area exceeds five percent of the surface, or when surface scab shows a pronounced contrast with the background color and the aggregate area exceeds three percent of the surface; when pitted scab affects the appearance of the potato to a greater extent than the amount of surface scab permitted or causes a loss of more than five percent of the total weight of the potato including peel covering the defective area; or when russet scab materially affects the appearance of the potato;

M. rhizoctonia when the appearance of the potato is materially affected, or when the surface is materially caked with black scurf;

N. dried stems when pliable and over one-eighth inch in diameter and over 2-1/2 inches long, or when stiff and over one-eighth inch in diameter and over one inch long;

O. insects, larvae, or worms when present inside the potato, or when any hole caused by them or by grass root or similar injury in a round or intermediate type potato 2-1/2 inches in diameter, or in a long type potato six ounces in weight, is more than three-fourths inch long, or when the aggregate length of all holes in such potatoes is more than 1-1/4 inches, or correspondingly shorter or longer holes in smaller or larger potatoes, or when other types of injury materially affect the appearance of the potato or cannot be removed without a loss of more than five percent of the total weight of the potato including peel covering the defective area;



P. mechanical or other means when cuts, shatter bruises or other bruises, punctures, or other injuries materially affect the appearance of the potato or cannot be removed without a loss of more than five percent of the total weight of the potato including peel covering the defective area.

Subp. 5. **Fairly clean.** "Fairly clean" means that the individual potato is reasonably free from dirt or staining and not more than a slight amount of loose dirt or other foreign matter is present in the container.

Subp. 6. **Fairly well matured.** "Fairly well matured" means that not more than ten percent, by weight, of the individual potatoes in the lot have more than one-fourth of the skin missing or feathered.

Subp. 7. **Fairly well shaped.** "Fairly well shaped" means that the individual potato is not materially pointed, dumbbell-shaped, or otherwise ill-formed.

Subp. 8. **Label.** The term "label" as used in parts 1555.6550 to 1555.6710 includes any legend or descriptive matter or design appearing upon potatoes or their container and also includes circulars, pamphlets, and the like, which are packed with and go with the potatoes to the purchaser, and such letters, circulars, and pamphlets to which reference is made either on the label attached to the container or on the container itself. The term "tag label" means a label which is attached to but is not a permanent part of the container.

Subp. 9. **Lot.** "Lot" means any number of containers which contain a product of the same kind located in the same conveyance, warehouse, packing house, or on the same dock or platform and which are available for inspection at the same time; provided, that:

A. products which are different from each other as to grade, variety, size, condition, identification marks, or other factors may be deemed to be separate lots;

B. if the applicant requests more than one inspection certificate covering different portions of the same lot, the quantity of the lot covered by each certificate shall be deemed to be a separate lot; and

C. if said product is packed in more than one size or type of container, each such size or type may be deemed to be a separate lot.

Subp. 10. **Serious damage.** "Serious damage," unless otherwise specifically defined in this part, means any defect which seriously affects the edible or shipping quality, or the internal or external appearance of the individual potato, or any external defect which cannot be removed without a loss of more than ten percent of the total weight of the potato including peel covering the defective area. Any one of the following defects, or any combination of defects the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as serious damage:

A. dirt or other foreign matter when the individual potato is badly caked with dirt or badly stained, or when an excessive amount of loose dirt or other foreign matter is present in the container;

B. sunburn when the discoloration extends into the flesh to such an extent that it cannot be removed without a loss of more than ten percent of the total weight of the potato including peel covering the affected area;

C. greening caused by exposure to natural or artificial light when the appearance of the individual potato is seriously affected by yellowish or greenish surface discoloration or when such discoloration extends into the flesh of the potato and cannot be removed without a loss of more than five percent of the total weight of the potato including peel covering the defective area;

D. second growth which seriously affects the appearance of the individual potato;

E. growth cracks which seriously affect the appearance of the individual potato;

F. air cracks which seriously affect the appearance of the individual potato;

G. hollow heart which seriously affects the internal appearance of the potato cut longitudinally;

H. internal discoloration, any part of which affects the vascular ring or occurs between the ring and the skin of the potato when the discoloration cannot be removed without a loss of more than ten percent of the total weight of the potato including peel covering the defective area, or discoloration occurring entirely within the area bounded by the vascular

ring when there is more than the equivalent of six scattered light brown spots one-eighth inch in diameter in a round or intermediate type potato 2-1/2 inches in diameter or in a long type potato six ounces in weight, or correspondingly lesser or greater numbers of spots on smaller or larger potatoes;

I. external discoloration when the appearance of the potato is seriously affected;

J. shriveling when the potato is excessively shriveled, spongy, or flabby;

K. scab when surface scab shows no pronounced contrast with the background color of the potato and the aggregate area exceeds 50 percent of the surface, or when surface scab shows a pronounced contrast with the background color and the aggregate area exceeds 25 percent of the surface; when pitted scab affects the appearance of the potato to a greater extent than the amount of surface scab permitted or causes a loss of more than ten percent of the total weight of the potato including peel covering the defective area; or when russet scab seriously affects the appearance of the potato;

L. *rhizoctonia* when the appearance of the potato is seriously affected, or when the surface is badly caked with black scurf;

M. insects, larvae, or worms when present inside the potato, or when any hole caused by them or by grass roots or similar injury in a round or intermediate type potato 2-1/2 inches in diameter or in a long type potato six ounces in weight, is more than 1-1/2 inches long, or when the aggregate length of all holes in such potatoes is more than two inches, or correspondingly shorter or longer holes in smaller or larger potatoes, or when other types of injury seriously affect the appearance of the potato or cannot be removed without a loss of more than ten percent of the total weight of the potato including peel covering the defective area; and

N. mechanical or other means when a fairly smooth cut such as is made by a knife to remove injury occurs on both ends of the potato; provided, that such a cut shall be permitted on one end of the potato if the length of the remaining portion of the clipped potato is more than 1-1/2 times the greatest diameter of the cut and that the remaining portion of a clipped long-type potato weighs at least six ounces; or when other cuts, shatter bruises or other bruises, punctures, or other injuries seriously affect the appearance of the potato or cannot be removed without a loss of more than ten percent of the total weight of the potato including peel covering the defective area.

Subp. 11. **Seriously misshapen.** "Seriously misshapen" means that the individual potato is seriously pointed, dumbbell-shaped, or otherwise badly deformed.

Subp. 12. **Soft rot or wet breakdown.** "Soft rot or wet breakdown" means any soft, mushy, or leaky condition of the tissue such as slimy soft rot, leak, or wet breakdown following freezing injury or sunscald.

Subp. 13. **Well shaped.** "Well shaped" means that the potato has the normal shape for the variety and is not pointed, dumbbell-shaped, or otherwise ill-formed.

**Statutory Authority:** *MS s 30.102*

### 1555.6550 MINNESOTA FANCY POTATOES.

Subpart 1. **General.** "Minnesota fancy" consists of potatoes of one variety or similar varietal characteristics which are fairly well matured and fairly well shaped; which are clean; which are not frozen; and which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, soft rot, or wet breakdown, and free from damage caused by sunburn, greening, second growth, growth cracks, air cracks, hollow heart, internal discoloration, external discoloration, shriveling, sprouting, scab, dry rot, *rhizoctonia*, dried stems, insects, larvae, worms, other disease, or mechanical or other means.

Subp. 2. **Size.** Unless otherwise specified, the size shall be as follows: the diameter of each potato shall be not less than two inches; for round or intermediate shaped varieties such as Irish Cobbler, Katahdin, Sebago, Pontiac, Kennebec, Green Mountain, or other similar varieties, not less than 60 percent of the potatoes in any lot shall be 2-1/4 inches or larger but not larger than 3-3/4 inches in diameter, including therein not less than 30 percent which are 2-3/4 inches or larger. For long varieties such as Russet Burbank, Early Gem, White Rose, or other similar varieties, not less than 60 percent of the potatoes in any lot shall be six ounces or more in weight, including therein not less than 30 percent which are ten ounces, but not more than 14 ounces in weight.

Subp. 3. **Tolerances for defects.** In order to allow for variations, other than size, incident to proper grading and handling, not more than ten percent, by weight, of the potatoes may be fairly clean, not more than a total of five percent may fail to meet the other requirements of this grade relating to external and internal defects; provided, that not more than two-fifths of this amount, or two percent, shall be allowed for potatoes which are frozen or affected by southern bacterial wilt, ring rot, late blight, soft rot, or wet breakdown, including therein not more than one-half of one percent for potatoes which are frozen or affected by soft rot or wet breakdown. (See part 1555.6640.)

**Statutory Authority:** *MS s 30.102*

#### 1555.6560 MINNESOTA NO. 1 POTATOES.

Subpart 1. **General.** "Minnesota No. 1" consists of potatoes of one variety or similar varietal characteristics which are fairly well shaped; which are not frozen; and which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, soft rot, or wet breakdown, and free from damage caused by dirt or other foreign matter, sunburn, greening, second growth, growth cracks, air cracks, hollow heart, internal discoloration, external discoloration, shriveling, sprouting, scab, dry rot, rhizoctonia, dried stems, insects, larvae, worms, other disease, or mechanical or other means. (See part 1555.6630.)

Subp. 2. **Size.** Unless otherwise specified, the diameter of each potato shall be not less than 1-7/8 inches. (See parts 1555.6600 to 1555.6620.)

Subp. 3. **Tolerances for defects.** In order to allow for variations, other than size, incident to proper grading and handling, not more than a total of 11 percent, by weight, of the potatoes in any lot may fail to meet the requirements of this grade; provided, that included in this amount not more than the following percentages shall be allowed for the defects listed: six percent for potatoes having external defects; and five percent for potatoes which are damaged by hollow heart, internal discoloration, or other internal defects; and provided further, that included in the above tolerances for external and internal defects not more than three percent shall be allowed for potatoes which are frozen or affected by southern bacterial wilt, ring rot, blight, soft rot, or wet breakdown, including therein not more than one percent for potatoes which are frozen or affected by soft rot or wet breakdown. (See part 1555.6640.)

**Statutory Authority:** *MS s 30.102*

#### 1555.6570 MINNESOTA NO. 2 POTATOES.

Subpart 1. **General.** "Minnesota No. 2" consists of potatoes of one variety or similar varietal characteristics which are not seriously misshapen or frozen; and which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, soft rot, or wet breakdown, and free from serious damage caused by dirt or other foreign matter, sunburn, greening, second growth, growth cracks, air cracks, hollow heart, internal discoloration, external discoloration, shriveling, scab, dry rot, rhizoctonia, insects, larvae, worms, other disease, or mechanical or other means. (See part 1555.6630.)

Subp. 2. **Size.** Unless otherwise specified, the diameter of each potato shall be not less than 1-1/2 inches. (See parts 1555.6600 to 1555.6620.)

Subp. 3. **Tolerances for defects.** In order to allow for variations, other than size, incident to proper grading and handling, not more than a total of 11 percent, by weight, of the potatoes in any lot may fail to meet the requirements of this grade; provided, that included in this amount not more than the following percentages shall be allowed for the defects listed: six percent for potatoes having external defects; and five percent for potatoes which are seriously damaged by hollow heart, internal discoloration, or other internal defects; and provided further, that included in the above tolerances for external and internal defects not more than three percent shall be allowed for potatoes which are frozen or affected by southern bacterial wilt, ring rot, late blight, soft rot, or wet breakdown, including therein not more than one percent for potatoes which are frozen or affected by soft rot or wet breakdown. (See part 1555.6640.)

**Statutory Authority:** *MS s 30.102*

#### 1555.6580 MINNESOTA UTILITY POTATOES.

Subpart 1. **General.** "Minnesota utility" consists of potatoes of one variety or similar varietal characteristics which are not frozen; and which are free from freezing injury, black-

heart, late blight, southern bacterial wilt, ring rot, soft rot, or wet breakdown, and free from serious damage caused by sunburn, greening, shriveling, dry rot, insects, larvae, worms, other disease, or other means. (See part 1555.6630.)

Subp. 2. **Size.** Unless otherwise specified, the diameter of each potato shall be not less than 1-1/2 inches. (See parts 1555.6600 to 1555.6620.)

Subp. 3. **Tolerances for defects.** In order to allow for variations, other than size, incident to proper grading and handling, not more than a total of 11 percent, by weight, of the potatoes in any lot may fail to meet the requirements of this grade; provided, that included in this amount not more than the following percentages shall be allowed for the defects listed: six percent for potatoes having external defects listed in this part; and five percent for potatoes which are seriously damaged by internal defects listed in this part; and provided further, that included in the above tolerances for external and internal defects not more than three percent shall be allowed for potatoes which are frozen or affected by southern bacterial wilt, ring rot, late blight, soft rot, or wet breakdown, including therein not more than one percent for potatoes which are frozen or affected by soft rot or wet breakdown. (See part 1555.6640.)

**Statutory Authority:** *MS s 30.102*

#### **1555.6590 UNCLASSIFIED POTATOES.**

"Unclassified" consists of potatoes which have not been classified in accordance with any of the foregoing grades. The term "unclassified" is not a grade within the meaning of these standards, but is provided as a designation to show that no grade has been applied to the lot.

**Statutory Authority:** *MS s 30.102*

#### **1555.6600 SIZE.**

The count, minimum size, or range of size may be specified in connection with the grade in terms of number of potatoes per container, or diameter or weight of the individual potato, or in accordance with one of the following size classifications:

A. Size A: for round or intermediate shaped varieties such as Irish Cobbler, Katahdin, Sebago, Pontiac, Kennebec, Green Mountain, or other similar varieties, the diameter of each potato shall be not less than 1-7/8 inches, and not less than 60 percent of the potatoes in the lot shall be 2-1/4 inches or larger; for long varieties such as Russet Burbank, Early Gem, White Rose, or other similar varieties, the diameter of each potato shall be not less than 1-7/8 inches, and not less than 40 percent of the potatoes in the lot shall be six ounces or more in weight;

B. Size B: for all varieties the potatoes shall be from 1-1/2 to 2-1/4 inches in diameter, inclusive; and

C. Size C: for all varieties the potatoes shall be from one inch to 1-1/2 inches in diameter, inclusive.

**Statutory Authority:** *MS s 30.102*

#### **1555.6610 DIAMETER.**

"Diameter" means the greatest dimension at right angles to the longitudinal axis.

**Statutory Authority:** *MS s 30.102*

#### **1555.6620 TOLERANCES FOR SIZE.**

In order to allow for variations incident to proper sizing, the following tolerances shall be allowed. Not more than three percent of the potatoes in any lot may fail to meet the specified minimum size except that a tolerance of five percent shall be allowed for potatoes packed to meet a minimum size of 2-1/4 inches or more in diameter or six ounces or more in weight. In addition, not more than ten percent may fail to meet any specified maximum size. When a percentage of the potatoes is specified to be of a certain size and larger, individual packages containing 15 pounds or less shall have not less than one-half of the percentage specified, and individual packages containing more than 15 pounds shall have not less than three-fourths of the percentage specified. When a number of potatoes per package is specified, the number of potatoes in individual packages shall not vary more than five percent from the number specified.

**Statutory Authority:** *MS s 30.102*

**1555.6630 SKINNING CLASSIFICATION.**

The following optional skinning classifications are provided as a basis for classifying lots of potatoes as to the degree of skinning. "Practically no skinning" means that not more than five percent of the potatoes in the lot have more than one-tenth of the skin missing or "feathered." "Slightly skinned" means that not more than ten percent of the potatoes in the lot have more than one-fourth of the skin missing or "feathered." "Moderately skinned" means that not more than ten percent of the potatoes in the lot have more than one-half of the skin missing or "feathered." "Badly skinned" means that more than ten percent of the potatoes in the lot have more than one-half of the skin missing or "feathered."

**Statutory Authority:** *MS s 30.102*

**1555.6640 APPLICATION OF TOLERANCES.**

The contents of individual packages in the lot, based on sample inspection, are subject to the following limitations; provided, that the averages for the entire lot are within the tolerances specified for the grade. For packages which contain more than 15 pounds, when a tolerance of ten percent or more is provided, individual packages in the lot shall have not more than 1-1/2 times the tolerance specified, and when a tolerance of less than ten percent is provided, individual packages in the lot shall have not more than double the tolerance specified, except that for potatoes which are frozen or affected by soft rot or wet breakdown, en route or at destination, not more than one-tenth of the packages may contain not more than four times the tolerance specified, and except that at least one defective and one offsize potato may be permitted in any package. For packages which contain 15 pounds or less, individual packages in the lot are not restricted as to the percentage of defects and offsize; provided, that not more than one-tenth of the packages may have more than one potato which is frozen or affected by soft rot or wet breakdown.

**Statutory Authority:** *MS s 30.102*

**1555.6650 BULK DISPLAY.**

All potatoes offered for sale at retail in bulk shall be displayed in bins or other open containers and shall not be represented as conforming to any grade, but may be identified as unclassified.

**Statutory Authority:** *MS s 30.102*

**1555.6660 PACKAGED POTATOES LABELING.**

Except as noted in part 1555.6710, all potatoes offered for sale in packaged form (closed containers), in addition to one of the grades specified in parts 1555.6550 to 1555.6580:

A. shall be labeled with the name "potatoes," the net weight, and the name and address, including the zip code, of the packer or distributor, and said label shall not be false or misleading in any particular. If the distributor's name is used, it shall be qualified with the word "distributor" or its equivalent. The variety of potatoes may be named on the label, and, if the variety is named, the potatoes in the labeled container shall conform to the variety named. Tag labels, as described in part 1555.6670, may be used;

B. shall not be packaged in a transparent container which is artificially colored as described in part 1555.6540; and

C. shall not be labeled unclassified.

**Statutory Authority:** *MS s 30.102*

**1555.6670 TAG LABELS.**

Tag labels may be used on unprinted new closable containers, on printed new closable containers to supply required information omitted in the printing, and on used containers which, if printed with incorrect label information, shall be turned inside out before being filled, or the incorrect information shall be removed or obliterated. Tag labels shall be printed in a color contrasting with the background. The grade designation shall be shown in letters not less than one-fourth inch high, and all other required information shall be easily readable. All label information may appear on one side of the tag but if it appears in part on both sides of the tag, the name "potatoes," the grade, and the net weight shall appear on the same side of the tag.

**Statutory Authority:** *MS s 30.102*

**1555.6680 GRADE EXCEPTIONS.**

Packaged potatoes, the label of which declares a United States grade in lieu of a Minnesota consumer grade and which otherwise are labeled in accordance with parts 1555.6540 to 1555.6710, shall be permitted to be sold at retail in Minnesota.

**Statutory Authority:** *MS s 30.102*

**1555.6690 PACKAGED POTATOES.**

Packaged potatoes shall conform to the grade declared on the label.

**Statutory Authority:** *MS s 30.102*

**1555.6700 USED CONTAINERS.**

Used containers which are reasonably clean may be reused to market potatoes provided that they are properly labeled as provided for in parts 1555.6650 to 1555.6710.

**Statutory Authority:** *MS s 30.102*

**1555.6710 EXCLUSION FROM GRADE LABELING REQUIREMENTS.**

The grade labeling requirements of part 1555.6660, item A shall not apply to a producer who sells in closed containers potatoes of the producer's own production directly to the final consumer for said consumer's own personal use.

**Statutory Authority:** *MS s 30.102*

**History:** *17 SR 1279*

**SEED POTATO CERTIFICATION****1555.6720 AUTHORITY.**

Parts 1555.6720 to 1555.6950 provide standards for the inspection, certification, production, and marketing of certified seed potatoes in the state of Minnesota. The authority to adopt these rules is contained in Minnesota Statutes, section 21.118.

**Statutory Authority:** *MS s 21.113*

**1555.6730 DEFINITIONS.**

Subpart 1. **General.** As used in parts 1555.6720 to 1555.6950, the following definitions apply unless the context clearly indicates otherwise.

Subp. 2. **Certified.** "Certified" has the meaning given it in Minnesota Statutes, section 21.111, subdivision 3.

Subp. 3. **Certified seed potatoes.** "Certified seed potatoes" means potatoes which have been produced, graded, sacked or placed in bulk, and inspected and certified in accordance with parts 1555.6720 to 1555.6950.

Subp. 3a. **Class.** "Class" means the seed quality level as it relates to compliance with the specified tolerances for diseases and varietal purity.

Subp. 3b. **Clone.** "Clone" means a unit of seed potatoes, being the progeny of one plant, which has been tested to become eligible to produce Primary Foundation 1 seed potatoes.

Subp. 4. **Commissioner.** "Commissioner" means the commissioner of agriculture or the commissioner's authorized representative.

Subp. 5. **Crop.** "Crop" means all lots produced on a farm in one year.

Subp. 6. **Department.** "Department" means the Department of Agriculture.

Subp. 6a. **Explant.** "Explant" means an in vitro potato plant or plantlet produced by rooting an excised tip of a tuber sprout or an axillary bud from a growing plant which serves as a parent for a whole clone or accession of micropropagated plants or plantlets.

Subp. 7. **Farm.** "Farm" means a seed potato enterprise. It includes all land, equipment, storage facilities, and laborers used to produce certified seed potatoes.

Subp. 8. **Field.** "Field" means a plot of land on a farm on which potatoes are grown for certification. The potatoes shall be of one variety from one certified seed potato growing operation and shall be grown in physical separation from other fields.

Subp. 9. **Inspected.** "Inspected" has the meaning given it in Minnesota Statutes, section 21.111, subdivision 2.

Subp. 10. **Lot.** "Lot" means a group of seed potatoes entered for certification that have passed the field inspection requirements. For the purposes of parts 1555.6720 to 1555.6950, a lot of potatoes also means that the group is of one variety, from one or more fields, grown on the same farm, and stored in physical separation from other lots.

Subp. 10a. **Material in maintenance.** "Material in maintenance" means propagative material, plantlets, or tubers that are maintained, not multiplied under controlled laboratory conditions.

Subp. 10b. **Physical separation.** "Physical separation" means separated by at least the width of one row.

Subp. 11. **Rejected.** "Rejected" means that a field or lot fails to meet the standards provided for in parts 1555.6720 to 1555.6950.

Subp. 12. **Seed potato certification inspector.** "Seed potato certification inspector" means an employee of the department authorized by the commissioner to inspect seed potato plants and tubers entered for certification.

Subp. 13. **Seed potatoes.** "Seed potatoes" has the meaning given it in Minnesota Statutes, section 21.111, subdivision 5.

Subp. 14. **Tolerance.** "Tolerance" means a specified allowance for variation from the standards provided for diseases and physical defects, as provided in parts 1555.6720 to 1555.6950.

Subp. 15. **Tuber unit.** "Tuber unit" means the separate pieces of one tuber that are planted consecutively in two or more hills in a row.

**Statutory Authority:** *MS s 21.113; 21.118*

**History:** *21 SR 482*

#### 1555.6740 GENERAL GUIDANCE.

Subpart 1. **Scope.** The provisions of this part govern the production of potatoes for use as certified seed potatoes.

Subp. 2. **Seed potato certification.** In order to produce certified seed potatoes, a grower must comply with the following procedures:

A. Potatoes entered for certification shall be inspected while growing in the field and again after harvest at the time of shipment. Certification shall be based upon visual inspection by the commissioner of sample plants and tubers from each field and lot, or for varieties that do not express visible symptoms of a specific pathogen, seed potatoes must be subjected to laboratory tests to determine the level of the pathogen in a seed lot. This testing may occur during the growing season, storage season, or winter testing. Certificates shall be issued to show the varietal purity, freedom from disease, and physical defects of the potatoes at the time of inspection.

B. Participation in the certified seed potato program shall be voluntary. The applicant may withdraw at any time. Farming and sanitation practices are the responsibility of the applicant. Certification and inspection under parts 1555.6720 to 1555.6950 shall be conducted by the commissioner. Failure of the applicant to comply with the requirements of these parts shall be cause for rejection of any field or lot. Potatoes from rejected fields or lots cannot be sold as certified seed potatoes.

Subp. 3. **Winter testing.** In order to detect certain virus diseases, samples from all classes higher than Certified class as defined in parts 1555.6840 and 1555.6845 shall be winter tested. In the event of serious malfunctions of the winter test, classification of lots in the certified classes must be based on the previous summer field readings.

Subp. 4. **Certified seed potato classes.** Seed potato certification classes are differentiated by their compliance level with disease tolerances and varietal purity. The origin of the seed also determines the class. The classes, according to their origin, in the generation system in descending order are: Prenuclear (PN), Nuclear (N), Generation 1 (G1), Generation 2 (G2), Generation 3 (G3), Generation 4 (G4), and Generation 5 (G5). Equivalent to this in the clonal system in descending order are: Primary Foundation 1 (PF1), Primary Foundation 2 (PF2), Foundation 1 (F1), Foundation 2 (F2), and Certified (C).

Subp. 5. **Certified seed potato grades.** Grades of certified seed potatoes are established according to the physical defects of the tubers. There are three grades used for shipping Minnesota certified seed potatoes.

A. The blue tag certified seed potato grade, the first grade, has tolerances for physical defects of the tubers stricter than the other grades. This grade may be used by growers of Primary Foundation certified, Foundation certified, and Certified seed potatoes. The blue tag grade may be used for intrastate and interstate shipments of certified seed potatoes.

B. The yellow tag certified seed potato grade is the second grade. This grade allows more physical defects of the tubers than the blue tag certified seed potato grade. It may be used by growers of Primary Foundation certified, Foundation certified, and Certified seed potatoes. The yellow tag grade may also be used for intrastate and interstate shipments of certified seed potatoes.

C. The white tag certified seed potato grade is the third grade. The tolerances for physical defects of the tubers are determined by agreement between purchaser and seller of the certified seed potatoes. This grade may only be used by growers of Primary Foundation certified and Foundation certified seed potatoes. It may only be used for intrastate shipments of certified seed potatoes.

Subp. 6. **Zero tolerance for bacterial ring rot and potato spindle tuber viroid.** Certification rules make provisions to allow the presence of certain diseases at levels sufficiently low as to preclude significant effects on certified seed potato value. For bacterial ring rot and potato spindle tuber viroid, there is a zero tolerance, and the discovery of a single plant in the field or a tuber in storage infected with one of these diseases shall cause the rejection of the field or lot. The absence of a finding shall not be construed to mean that the field or lot inspected is free from the disease.

Subp. 7. **Warranty.** A certification does not represent a warranty of any kind, express or implied, including merchantability, as to the quality of the crop produced from the certified seed potatoes. A certification represents only that the seed potatoes were produced, graded, sacked or placed in bulk, and inspected in accordance with parts 1555.6720 to 1555.6950.

**Statutory Authority:** *MS s 21.113; 21.118*

**History:** *8 SR 1659; 21 SR 482*

**1555.6750** [Repealed by amendment, 8 SR-1659]

### **1555.6760 APPLICATION FOR INSPECTION.**

Subpart 1. **Eligibility; procedure.** All potatoes planted on a farm must be entered for certification. Application for inspection must be made before June 16 each year on forms furnished by the commissioner. Applications postmarked after June 15 but before July 1 must be charged a 50 cents per acre late registration fee. No applications may be accepted that are postmarked later than June 30. The commissioner may extend the deadline due to special circumstances, such as natural disasters, which make it impractical or impossible for planting to be completed by the deadline and which affect an area or large number of growers.

Subp. 2. **Shipping point inspection certificates, bulk seed certificates, or certificates of origin.** An application for the inspection of a field planted with purchased certified seed potatoes must include copies of either the shipping point inspection certificates, bulk seed certificates, or certificates of origin for the total amount of purchased certified seed potatoes planted. Use of certificates of origin requires approval of both the seller and the purchaser and is restricted to intrastate shipments between certified seed potato producers. The certificate of origin must contain information considered necessary by the commissioner and must at a minimum identify seed potatoes as to the producer, variety, classification, and lot. The limitation of warranty in part 1555.6740, subpart 7, must be further limited to exclude any representation as to condition of the potatoes at the time of shipment.

Subp. 3. **Separate application.** A separate application must be completed for each field planted.

Subp. 4. **Sufficient acreage.** No application for inspection may be accepted from a grower in a community or county in which there is not sufficient acreage for the total inspec-



tion fee charges to cover the cost of wages and expenses of the inspectors providing the inspection service. Determination of sufficient acreage must be made by the commissioner.

**Statutory Authority:** *MS s 21.113; 21.118*

**History:** *11 SR 2164*

**1555.6770** [Repealed, 11 SR 2164]

**1555.6780** [Repealed, 11 SR 2164]

**1555.6790** [Repealed, 11 SR 2164]

**1555.6800 SEED POTATOES ELIGIBLE FOR MINNESOTA CERTIFICATION PLANTING.**

Subpart 1. **Authorization.** A field may not be inspected for certification unless both the seed potato variety and the particular lot planted have the authorization of the commissioner. In considering seed potato varieties for authorization for certification planting, the commissioner shall consider scientific evidence and expert opinion. To be eligible for certification planting, seed potatoes must meet the requirements of subpart 2 or 3.

Subp. 2. **Minnesota grown seed potatoes.** The following classes of seed potatoes grown in Minnesota are eligible for planting: Prenuclear, Nuclear, Generation 1, Generation 2, Generation 3, Generation 4, Primary Foundation 1, Primary Foundation 2, Foundation 1, Foundation 2, and experimental status seed potatoes. The commissioner shall authorize the planting of Certified class or Generation 5 class seed potatoes if there is no source of higher classes than Certified class or Generation 5 class seed potatoes available to the grower and the lot has been winter tested.

Subp. 3. **Non-Minnesota grown seed potatoes.** Seed potatoes grown outside of the state approved for certification planting by the certifying agency in another state or a Canadian province may be planted if tolerances for certification meet Minnesota tolerances for certified seed potatoes of classes higher than Certified class or Generation 5 class, as indicated on an import affidavit.

Subp. 4. **Experimental status.** Seedlings or numbered selections may be accepted for entrance into the certification system in an experimental status. The applicant shall submit a written statement with the certification application from the breeder, originator, or originator's designee that the applicant has full and unrestricted rights to introduce the seedling or numbered selection into the commercial market, and that the seedling or numbered selection must be named within five years from acceptance of the application. If the seedling or numbered selection is not named within five years from acceptance of the application, a two-year waiting period must pass before the seedling or numbered selection may be reentered into the certification program. Seedlings or numbered selections in experimental status must be designated as a class and conform to the requirements of that class. The word "EXPERIMENTAL" must be added on the tag. Lots from a breeder's seed that have not gone through the testing and, when necessary, virus-freeing, are considered either Foundation class 1 or 2, "EXPERIMENTAL."

Subp. 5. **Protected varieties.** Before a seed potato variety protected under the Plant Variety Protection Act Amendments of 1994 may be entered into the certification system, the applicant must submit a written statement with the certification application from the breeder, originator, or originator's designee that the applicant has full and unrestricted rights to introduce the protected variety into the commercial market.

**Statutory Authority:** *MS s 21.113; 21.118*

**History:** *8 SR 1659; 21 SR 482*

**1555.6810** [Repealed, 21 SR 482]

**1555.6820** [Repealed, 21 SR 482]

**1555.6830** [Repealed, 21 SR 482]

**1555.6840 REQUIREMENTS FOR CERTIFIED SEED POTATO PRODUCTION.**

Subpart 1. **Requirements.** The standards in this part and part 1555.6845 must be met before potatoes may be classified as certified seed potatoes.

Subp. 2. **Field inspection and laboratory testing.** Certification must be based upon information regarding the following: stand, general vigor, varietal purity, disease tolerances, and factors affecting field inspection. At least two field inspections must be made of each field during the growing season. A final inspection must be made for bacterial ring rot, when symptom expression is optimal. If a final inspection cannot be carried out, because of management practices of the grower, the seed lot must be rejected. If a final inspection cannot be performed for reasons out of the grower's control, a laboratory test is necessary to maintain eligibility for certification. Additional inspections and laboratory tests may be made if necessary to meet phytosanitary requirements in established markets such as other states and Canadian provinces.

A. **Stand.** A field shall be rejected if there are a large number of plants missing due to disease.

B. **General vigor.** A field shall be rejected if it contains a large number of weak plants.

C. **Ring rot.** If bacterial ring rot is found in any field or lot, the remaining crop is not eligible for certification planting.

D. **Varietal purity.** A field must be rejected if it contains more than the tolerances acceptable for a specific class as listed in Tables 1 and 2 in part 1555.6845, subparts 11 and 12.

E. **Disease tolerances (percentage of infected plants).** A field must be rejected if it contains percentages of diseased plants in excess of those acceptable for a specific class as listed in Tables 1 and 2 in part 1555.6845, subparts 11 and 12.

F. **Factors affecting field inspection.** A field shall be rejected if any of the following are present to such an extent that satisfactory inspection for diseases cannot be made: early or late blight; blackleg or wilt of any kind; weeds; insect injury; chemical damage.

A field shall be rejected if any other conditions are present to such an extent that satisfactory inspection for diseases cannot be made. A field is ineligible for certification if there are cull piles in such close vicinity to the field that contamination of the field can be expected.

Subp. 3. **Roguing.** If any of the diseases listed in part 1555.6845 are present in a field in amounts less than the maximum disease tolerance level, the field must be rogued and the infected plants removed before the final inspection. If roguing is done after tubers form, the tubers from the rogued plants shall also be removed and destroyed.

Subp. 4. **Storage.** Lots shall not be stored in any warehouse where other potatoes are stored, nor shall they be stored under conditions of possible disease contamination. If more than one grower stores lots in the same warehouse, each grower's lots shall be properly identified by labeling the bin with the grower's name and address, variety, and amount in the bin. If the lots are to be stored in a public warehouse or storage unit not directly under the control of the grower, a complete record giving location of the storage unit, number of the bin, variety, and the quantity stored shall be sent to the commissioner when the lots are put into storage. If it is available, a copy of the warehouse receipt shall also be sent to the commissioner.

Equipment used for grading and handling lots shall not be used for any other potatoes. If any equipment is used on other potatoes, the lots shall be rejected.

Any firm handling lots on contract shall label all bins containing lots with the name of the grower whose lots are being stored. Responsibility for proper labeling and subsequent handling rests with the firm. No certification tags or bulk certificates shall be issued until this is done.

Each grower shall submit a completed storage and yield report on each lot on forms furnished by the commissioner. Certification tags shall not be issued to growers who have not submitted the report.

Subp. 5. **Tags and bulk certificates.** Official blue, yellow, or white tags, bearing the grower's name and address, the potato variety, and the crop year shall be issued when the potatoes meet the certification requirements described in parts 1555.6740 to 1555.6845. Tags shall be fastened onto sacks so as to constitute a seal at the time the lots are prepared for shipment. Bulk certificates must also show the date of issuance, the class, the grade, and the approximate weight of the load.

Tags shall be issued only to growers, except when lots are stored in a public warehouse or in a storage unit not under direct control of the grower. They shall be issued to the owner or manager of the storage unit upon receipt of written authorization from the grower.

Responsibility for ordering tags shall rest entirely with each grower.

Subp. 6. **Grading.** All lots shall be inspected at the loading point whenever possible. If inspection at the loading point is impossible, request for grading inspection in transit shall be made. Every bagged lot or shipment offered for sale and bearing official certification tags shall be in new even-weight sacks. Bulk shipments shall be identified with a bulk certificate. Both bagged and bulk lots or shipments must meet grade standards specified in part 1555.6950. Lots or shipments that fail to meet grade standards when inspected shall be re-conditioned, or:

A. if the lot or shipment is in sacks, the tags shall be removed under the supervision of a state or federal/state inspector before the lot or shipment is allowed to proceed to its destination; and

B. if the shipment is in bulk, no bulk certificate shall be issued.

All costs of reconditioning to meet grade shall be borne by the shipper.

**Statutory Authority:** *MS s 21.113; 21.118*

**History:** *11 SR 335; 17 SR 438; 21 SR 482*

### 1555.6845 REQUIREMENTS FOR PRODUCTION OF DIFFERENT CLASSES OF CERTIFIED SEED POTATOES.

#### Subpart 1. **Pre-nuclear class certified seed potatoes (PN).**

A. A lot grown as and intended to be Pre-nuclear must be grown from plants tested and shown to be free from the following pathogens:

- (1) *Clavibacter michiganensis ssp. sepedonicus* (ring rot);
- (2) *Erwinia carotovora* (blackleg);
- (3) potato virus X;
- (4) potato virus S;
- (5) potato virus A;
- (6) potato virus M;
- (7) potato virus Y;
- (8) potato spindle tuber viroid; and
- (9) potato leaf roll virus.

Each initial explant or tuber must also have been tested for any other organisms for which testing is required by the phytosanitary requirements in another state or Canadian province. Material in maintenance must have been tested during the year of the production of pre-nuclear class.

B. Pre-nuclear class seed potatoes must be produced in a greenhouse or screenhouse under sanitary conditions, free from insects and weeds that can harbor or transmit potato diseases or other conditions of possible disease contamination. All facilities must be sufficiently insulated from insects by screens and double doors. The facilities and the equipment are subject to inspection to verify freedom from possible disease contamination.

C. One percent of each lot or ten plants or tubers from each lot, whichever is greater, must be tested during the growing season to verify that the crop is free from potato virus X, potato virus Y, potato leaf roll virus, *C. michiganensis*, and *E. carotovora*.

D. Prenuclear tubers may originate from greenhouse tubers for one year only if the greenhouse tubers have remained at the same growing operation and have remained isolated from field-grown tubers.

E. A lot must be rejected if it contains any diseased plants at any inspection, or varietal mixture at final inspection.

F. The allowable tolerances for disease and varietal mixture for seed potatoes classified as prenuclear are in Table 1 in subpart 11 under column PN.

Subp. 2. **Nuclear class certified seed potatoes (N).** Nuclear class seed potatoes must meet the following requirements:

A. The seed source must be either Prenuclear tubers or plantlets.

B. Tubers or plantlets must be planted in identifiable family units.

C. Each field must be tested during the growing season for potato virus X. For a lot to be tagged "virus tested (VT)," no more than one percent of the plants tested may be infected with potato virus X.

D. Each lot must be stored in an individual identifiable unit.

E. The allowable tolerances for disease and varietal mixture for seed potatoes classified as Nuclear are in Table 1 in subpart 11 under column N.

Subp. 3. **Generation 1 class certified seed potatoes (G1).** Generation 1 class seed potatoes must originate from Nuclear class seed potatoes. Each field may be tested during the growing season for potato virus X at grower's request. For a lot to be tagged "virus tested (VT)," no more than three percent of the plants tested may be infected with potato virus X. The allowable tolerances for disease and varietal mixture are in Table 1 in subpart 11 under column G1.

Subp. 4. **Generation 2 class certified seed potatoes (G2).** Generation 2 class seed potatoes must originate from Generation 1 class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 1 in subpart 11 under column G2.

Subp. 5. **Generation 3 class certified seed potatoes (G3).** Generation 3 class seed potatoes must originate from Generation 2 class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 1 in subpart 11 under column G3.

Subp. 6. **Generation 4 class certified seed potatoes (G4).** Generation 4 class seed potatoes must originate from Generation 3 class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 1 in subpart 11 under column G4.

Subp. 7. **Generation 5 class certified seed potatoes (G5).** Generation 5 class seed potatoes must originate from Generation 4 class seed potatoes. This class is not winter tested. The allowable tolerances for disease and varietal mixture are in Table 1 in subpart 11 under column G5.

Subp. 8. **Primary Foundation classes (PF).**

A. A lot grown as and intended to be Primary Foundation certified seed potatoes must originate from clonal selection, with all clones laboratory tested and be proven free from the following pathogens:

(1) *Clavibacter michiganensis ssp. sepedonicus* (ring rot);

(2) potato virus A;

(3) potato virus M;

(4) potato virus Y;

(5) potato spindle tuber viroid; and

(6) potato leaf roll virus.

B. A lot must be kept under direct control of the grower and must not be stored in any warehouse in which other potatoes are stored.

C. The two classes of Primary Foundation seed potatoes are PF1 and PF2.

(1) PF1 class certified seed potatoes must originate from clonal multiplication where all clones have been laboratory-tested. PF1 class seed potatoes are tuber united. Crops must be free of bacterial ring rot for a minimum of two years to be eligible to be PF1 class seed potatoes. The allowable tolerances for disease and variety mixture are in Table 2 in subpart 12 under column PF1.

(2) PF2 class certified seed potatoes must originate from PF1 class seed potatoes and originate from the same farm operation. They must be grown from potatoes produced on a tuber unit seed plot. Crops must be free of bacterial ring rot for a minimum of two years to be eligible to be PF2 class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 2 in subpart 12 under column PF2.

Subp. 9. **Foundation classes (F).** The two classes of Foundation class seed potatoes are F1 and F2.

A. F1 class certified seed potatoes must originate from Primary Foundation class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 2 in subpart 12 under column F1.

B. F2 class certified seed potatoes must originate from F1 class seed potatoes. The allowable tolerances for disease and varietal mixture are in Table 2 in subpart 12 under column F2.

Subp. 10. **Certified class certified seed potatoes.** Certified class seed potatoes must originate from Foundation or Generation classes of seed potatoes. This class is not winter tested. The allowable tolerances for disease and varietal mixture are in subpart 11, Table 2, under column C.

Subp. 11. **Table 1.**

TABLE 1  
TOLERANCES FOR DISEASES AND VARIETAL  
MIXTURE FOR GENERATION CLASSES

	CLASSES						
	PN	N	G1	G2	G3	G4	G5
Severe Mosaic	0	0.1	0.2	0.2	0.3	0.3	0.4
Leaf roll	0	0.1	0.2	0.2	0.3	0.3	0.4
Total	0	0.1	0.2	0.2	0.3	0.3	0.4
Total other viruses (S and X excluded)	0	0.1	0.2	0.2	0.3	0.3	0.4
Mycoplasmas	0	0.1	0.2	0.2	0.3	0.3	0.4
Total	0	0.1	0.2	0.2	0.3	0.3	0.4
Mild Mosaic (S)	0						
Mild Mosaic (X)	0	VT:1	VT:3	VT:3	VT:3	VT:3	VT:3
Blackleg	0	0	0.2	0.5	1.0	exc.	exc.
Varietal Mixture	0	0	0	0	0.1	0.1	0.2
Ring Rot and Spindle Tuber	0	0	0	0	0	0	0
Winter Test:							
Virus, Ch. Dam.		0.5	0.5	0.5	0.5	0.5	
BRR, PSTV		0	0	0	0	0	
Summer Test:							
PVX, VT*	0	1.0	3.0	3.0	3.0	3.0	3.0
Virus, BRR, PSTV	0						

Numbers represent percentages

VT means Virus Tested

Mycoplasmas: Haywire, Witches Broom, Yellow Dwarf

Severe Mosaic: PVY, PVA, PVM

BRR means Bacterial Ring Rot

PSTV means Potato Spindle Tuber Viroid

Ch. Dam. means Expressing symptoms of chemical damage

\* For the classes G1 and lower, the summer test for PVX is done on request of the grower only. The lot may be labeled "Virus Tested," if the tolerance of one percent for N and three percent for the lower classes is met.

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Subp. 12. **Table 2.**

**TABLE 2**  
**TOLERANCES FOR DISEASES AND VARIETAL MIXTURE FOR**  
**CLASSES ORIGINATING FROM CLONAL MULTIPLICATION**

	CLASSES					
	CLONE	PF1	PF2	F1	F2	C
Severe Mosaic	0	0.1	0.2	0.3	0.3	1.00
Leaf roll	0	0.1	0.2	0.3	0.3	0.3
Total	0	0.1	0.2	0.3	0.3	1.0
Total other viruses (S and X excluded)	0	0.1	0.2	0.3	0.3	0.5
Mycoplasmas	0	0.1	0.2	0.3	0.3	0.5
Total	0	0.1	0.2	0.3	0.3	0.5
Mild Mosaic (S)						
Mild Mosaic (X)						
Blackleg		0.1	0.2	exc.	exc.	exc.
Varietal Mixture				0.1	0.2	0.2
Ring Rot and Spindle Tuber	0	0	0	0	0	
Winter Test:						
Virus, Ch. Dam.		0.5	0.5	0.5	0.5	
BRR, PSTV		0	0	0	0	
Summer Test:						
Virus, BRR, PSTV	0					

Numbers represent percentages

VT means Virus Tested

Mycoplasmas: Haywire, Witches Broom, Yellow Dwarf

Severe Mosaic: PVY, PVA, PVM

BRR means Bacterial Ring Rot

PSTV means Potato Spindle Tuber Viroid

Ch. Dam. means Expressing symptoms of chemical damage.

**Statutory Authority:** *MS s 21.118*

**History:** *21 SR 482*

**1555.6850** [Repealed, 21 SR 482]

**1555.6851** [Repealed, 21 SR 482]

**1555.6852** [Repealed, 21 SR 482]

**1555.6860** [Repealed, 21 SR 482]

**1555.6870** [Repealed, 21 SR 482]

**1555.6880** [Repealed, 21 SR 482]

**1555.6890** [Repealed, 21 SR 482]

**1555.6900** [Repealed, 21 SR 482]

**1555.6910 FEES.**

Fees shall be set by the commissioner in amounts necessary to carry out the seed potato certification service. Fees shall be reviewed annually and notice of the current fee schedule sent to growers from time to time.

**Statutory Authority:** *MS s 21.113*

**1555.6920 FIELD INSPECTION FEES.**

Field inspection fees shall be paid at time of application for entry into the certification program.

**Statutory Authority:** *MS s 21.113*

**1555.6930 WINTER-TESTING FEES.**

Winter-testing fees shall be paid before results are sent to the grower.

**Statutory Authority:** *MS s 21.113*

**1555.6940 FEES FOR OTHER DISEASE TESTING.**

Fees for other disease testing shall be paid before results are listed in the Minnesota Seed Potato Certification Directory.

**Statutory Authority:** *MS s 21.113*

**1555.6950 MINNESOTA CERTIFIED SEED POTATO GRADES AND TOLERANCES.**

Subpart 1. **Minnesota certified seed potato grades.** Before potatoes are eligible for grading as certified seed potatoes, the requirements of parts 1555.6750 to 1555.6845 must be met.

Subp. 2. **Minnesota blue tag certified seed potato grade.** To be graded as Minnesota blue tag certified seed potatoes, the potatoes must meet the requirements in items A to C.

A. **Condition.** The potatoes must be, at the time of final inspection, of one variety, unwashed, fairly well-shaped, free from bacterial ring rot, powdery scab, late blight, freezing, black heart, and soft rot or wet breakdown, and free from damage caused by soil or other foreign matter, second growth, air cracks, cuts, shriveling, sprouts, pitted scab, surface scab, russet scab, dry rot, other diseases, insects or worms, mechanical or other means, flattened or depressed areas with underlying flesh discoloration, and from serious damage caused by hollow heart, wire worm, growth cracks, or internal discoloration other than hollow heart. Sunburn and silver scurf are not factors.

B. **Size.** For round or intermediate shaped varieties, the maximum size shall be not more than 12 ounces (340.2 grams) and, unless otherwise specified, the minimum size shall be not less than 1-1/2 inches (38.1 millimeters) in diameter. For long varieties, the maximum size shall be not more than 14 ounces (396.9 grams) and, unless otherwise specified, the minimum size shall be not less than 1-1/2 inches (38.1 millimeters) in diameter. For all varieties, size "B," the minimum diameter shall be not less than 1-1/2 inches (38.1 millimeters) and the maximum size shall be not more than 2-1/4 inches (57.1 millimeters) in diameter.

C. **Lot tolerances.** In order to allow for variations incident to proper grading and handling, the following tolerances, by weight, are provided:

(1) For defects:

- (a) ten percent for potatoes seriously damaged by hollow heart;
- (b) five percent for potatoes seriously damaged by internal discoloration (other than hollow heart);
- (c) ten percent for potatoes damaged by soil or other foreign matter;
- (d) 20 percent for potatoes damaged by sprouts;
- (e) ten percent for potatoes seriously damaged by wireworm; and
- (f) six percent for potatoes which fail to meet the remaining requirements of the grade, provided that included in that amount not more than the following percentages are allowed for the following defects:
  - i. soft rot, frozen, or wet breakdown, 0.5 percent;
  - ii. damage by surface or pitted scab, 2.0 percent;
  - iii. damage by dry rot, 2.0 percent, of which not more than 1.0 percent late blight tuber rot;
  - iv. bacterial ring rot, 0.0 percent;
  - v. powdery scab, 0.0 percent; and
  - vi. late blight tuber rot, 1.0 percent; and
- (g) the following do not affect seed quality and must not be scored against the grade:
  - i. brown discoloration following skinning;
  - ii. dried stems;

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- coloration;
- iii. flattened or depressed areas showing no underlying flesh discoloration;
- iv. greening;
- v. sunburn;
- vi. skin checks; and
- vii. silver scurf.

(2) For offsize:

- (a) five percent for potatoes which fail to meet the required or specified minimum size; and
- (b) ten percent for potatoes which fail to meet the required maximum size.

**Subp. 3. Minnesota yellow tag certified seed potato grade.** To be graded as Minnesota yellow tag certified seed potatoes, the potatoes must meet the requirements of blue tag with the exceptions in items A to D.

A. Condition. Potatoes must be free from serious damage by soil or other foreign matter and russet scab.

B. Lot tolerances:

(1) For defects:

- (a) 20 percent for potatoes seriously damaged by hollow heart; and
- (b) 20 percent for potatoes that fail to meet the remaining requirements of the grade, with not more than six percent serious damage.

(2) The following do not affect seed quality and must not be scored against the grade:

- (a) sprouts; and
- (b) flattened or depressed areas with or without underlying flesh discoloration.

C. Size. For all varieties, unless otherwise specified, the maximum size must be not more than 14 ounces (396.9 grams).

D. Shape. The potatoes must be fairly well shaped, with an exception for long varieties where the tag states "except for shape." In that case the tubers may be misshapen.

**Subp. 4. Minnesota white tag certified seed potato grade.** Minnesota white tag certified seed potato grade consists of certified seed potatoes that are graded according to agreement between the seller and the purchaser as to size and defects, except that not more than one-half percent of soft rot, frozen, or wet breakdown and two percent dry rot, of which not more than one percent late blight tuber rot is allowed.

The use of the white tag certified seed potato grade must be restricted to intrastate shipments.

**Subp. 5. Application of tolerance.** The contents of individual containers, other than bulk conveyances, in the lot are subject to the following limitations provided that the averages for the entire lot are within the tolerances specified for the grade. An individual container in any lot may contain not more than double the tolerance specified except for sprouts and except that at least one defective specimen, other than bacterial ring rot or powdery scab, and one offsize specimen may be permitted in any container.

**Subp. 6. Condition after transit.** Deterioration developing in transit shall be considered as affecting condition and not grade.

**Subp. 7. Definitions.** For the purpose of this part, the terms in items A to J have the meanings given them unless the context clearly indicates otherwise.

A. "Mature" means that the outer skin (epidermis) does not loosen or "feather" readily during the ordinary methods of handling.

B. "Well-shaped" means the normal shape for the variety.

C. "Fairly well-shaped" means that the individual potato is not materially pointed, dumbbell-shaped, or otherwise ill-formed.

D. "Fairly clean" means that the individual potato is reasonably free from dirt, staining, or other foreign matter.



E. "Slightly dirty" means that the appearance of the individual potato is not materially affected by dirt, staining, or other foreign matter.

F. "Diameter" means the greatest dimension at right angles to the longitudinal axis. The long axis shall be used without regard to the position of the stem (stolon).

G. "Soft rot or wet breakdown" means any soft, mushy, or leaky condition of the tissues.

H. "Dry rot" means decaying tissue that is dry.

I. "Damage" means any defect or combination of defects which materially affects the appearance of the individual potato or which cannot be removed without a loss of more than five percent of the total weight of the potato including the peel covering the defective area. Any one of the following defects or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

- (1) russet scab when it materially detracts from the appearance of the individual potato;
- (2) second growth or growth cracks which have developed to such an extent as to materially affect the appearance of the individual potato;
- (3) air cracks when removal causes a loss of more than five percent of the total weight of the potato;
- (4) shriveling when the potato is more than moderately shriveled, spongy, or flabby;
- (5) sprouting when the individual potato has sprouts over one inch in length;
- (6) surface or pitted scab, individually or in combination, which covers an area of more than five percent of the surface of the potato in the aggregate, or causes a loss of more than five percent of the total weight of the potato including peel covering defective area;
- (7) soil if the individual potato has more than 50 percent of its surface affected by lightly caked soil which is scattered, or more than 15 percent of its surface badly caked with soil.

J. "Serious damage" means any defect or combination of defects which seriously affects the appearance of the individual potato or which cannot be removed without a loss of more than ten percent of the total weight of the potato including the peel covering the defective area. Any one of the following defects or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect shall be considered as serious damage:

- (1) russet scab when it seriously detracts from the appearance of the potato;
- (2) dirt when the appearance of the individual potato is seriously affected by caked or smeared dirt or other foreign matter;
- (3) cuts when both ends are clipped or when more than an estimated one-fourth of the potato is cut away from one end or when the remaining portion of the clipped potato weighs less than six ounces;
- (4) other cuts which seriously affect the appearance of the individual potato or which cannot be removed without a loss of more than ten percent of the total weight of the potato including peel covering defective area;
- (5) shriveling when the potato is excessively shriveled, spongy, or flabby;
- (6) surface or pitted scab, individually or in combination, which covers an area of more than 25 percent of the surface of the potato in the aggregate, or causes a loss of more than ten percent of the total weight of the potato including peel covering defective area;
- (7) wireworm and air cracks when removal causes a loss of more than ten percent of the total weight of the potato.

**Statutory Authority:** *MS s 21.113; 21.118*

**History:** *8 SR 1659; 11 SR 1407; 12 SR 1809; 17 SR 1829; 21 SR 482*

**TOM AND JERRY BATTER, TOM AND JERRY MIX****1555.7410 TOM AND JERRY BATTER, TOM AND JERRY MIX.**

"Tom and Jerry batter," "Tom and Jerry mix," is a manufactured food product consisting of water and sugar or other approved sweeteners to which are added spices and fresh, frozen, or dried egg yolks or whole eggs with or without Grade A dairy products, approved stabilizers, flavors, colors, and emulsifiers.

**Statutory Authority:** *MS s 31.10*

**1555.7420 TOM AND JERRY BASE.**

"Tom and Jerry base" is a manufactured food product containing all of the ingredients of Tom and Jerry batter, Tom and Jerry mix, except that water has been omitted or removed.

**Statutory Authority:** *MS s 31.10*

**1555.7430 LABELING.**

The name of the food product is "Tom and Jerry batter," "Tom and Jerry mix," and the name of the base is "Tom and Jerry base." The name of the product "Tom and Jerry batter," "Tom and Jerry mix" shall be qualified by the word "pasteurized" and if it is homogenized, the word "homogenized."

**Statutory Authority:** *MS s 31.10*

**1555.7440 LABELING WHEN ARTIFICIAL COLORING IS USED.**

When any artificial coloring is used in Tom and Jerry batter, Tom and Jerry mix, or Tom and Jerry base, directly or as a component of any ingredient, the label shall bear the words "artificially colored" or "\_\_\_\_\_ 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."

**Statutory Authority:** *MS s 31.10*

**1555.7450 LABELING WHEN ARTIFICIAL FLAVOR IS USED.**

When artificial flavor is used in Tom and Jerry batter, Tom and Jerry mix, or Tom and Jerry base, either directly or as a component of any ingredient, the label shall bear the words "artificial flavor added" or "artificial \_\_\_\_\_ flavor added," the blank being filled in with the common name of the flavor simulated by the artificial flavor. If both artificial color and artificial flavorings are used, the label statements may be combined.

**Statutory Authority:** *MS s 31.10*

**1555.7460 PASTEURIZATION.**

Every particle of Tom and Jerry batter, Tom and Jerry mix, shall be heated to a temperature of not less than 155 degrees Fahrenheit and held at that temperature for not less than 30 minutes in properly operated equipment approved by the commissioner, or to a temperature of not less than 175 degrees Fahrenheit and held at that temperature for not less than 25 seconds in properly operated equipment approved by the commissioner. Nothing contained in this part shall be construed as excluding any other process which has been demonstrated to be equally efficient and is approved by the commissioner.

**Statutory Authority:** *MS s 31.10*

**1555.7470 COOLING.**

Immediately after pasteurization such Tom and Jerry batter, Tom and Jerry mix, shall be cooled in properly operated equipment approved by the commissioner to a temperature of 50 degrees Fahrenheit, or lower, and held at such temperature until delivered to the final consumer.

**Statutory Authority:** *MS s 31.10*

**1555.7480 RECORDS.**

A recording thermometer record chart, properly completed, identified, and dated, of each batch of Tom and Jerry batter, Tom and Jerry mix, pasteurized and cooled shall be avail-

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able at the plant of pasteurization at all reasonable times for examination by the commissioner or the commissioner's agents and shall be retained for a period of three months.

**Statutory Authority:** *MS s 31.10*

**History:** *17 SR 1279*

**1555.7490 BACTERIAL COUNTS AND COLIFORM COUNTS.**

At no time after pasteurization and cooling shall Tom and Jerry batter, Tom and Jerry mix, have a bacterial count exceeding 20,000 bacteria per gram, standard plate count, nor a coliform count exceeding ten coliforms per gram nor a temperature above 50 degrees Fahrenheit in more than two of the last four consecutive samples taken on separate days.

**Statutory Authority:** *MS s 31.10*

**1555.7500 SANITATION.**

Establishments in which Tom and Jerry batter, Tom and Jerry mix, or Tom and Jerry base are manufactured shall conform to all of the applicable items of sanitation described under parts 1525.0720 to 1525.1350; 1525.1360, 1525.1370, 1525.1390 and 1525.1410; provided, that if the room or rooms where such Tom and Jerry batter, Tom and Jerry mix, or Tom and Jerry base are manufactured, packaged, and stored and equipment and utensils are washed are not wet locations, the construction requirements of parts 1525.0730 to 1525.0740 and 1525.0770 to 1525.0830, and the plumbing and liquid waste disposal requirements of parts 1525.0960 to 1525.0970 shall be satisfied if:

A. the floors of such room or rooms are impervious or are solid floors covered with tightly sealed, approved washable material and are kept clean and in good repair;

B. the walls and ceilings of such room or rooms are smooth, washable, light-colored, and are kept clean and in good repair;

C. said room or rooms are used for no other purpose at the time when such products are being manufactured, pasteurized, cooled, further processed and/or packaged; and

D. liquid wastes from drip, spillage, and washing of utensils and equipment are disposed of in accordance with the provisions of Minnesota Plumbing Code, as adopted by Minnesota Department of Health, October 16, 1951.

**Statutory Authority:** *MS s 31.10*