

7-3 Processed Edible Fat and Oil Products

1) Definition

Processed edible fat and oil Products refers to products manufactured/processed by adding food or food additives to vegetables or animal fats and oils as main ingredients; it includes blended edible oil, flavored oil, processed fat and oil, shortening, margarine, vegetable cream and imitation cheese, etc.

2) Requirements for Ingredients, etc.

3) Manufacturing/Processing Standards

4) Food Type

(1) Blended edible oil

It refers to a simple mixture of 2 or more types of edible fat and oil, whose product type is specified in this Notification (except for pressed sesame oil, pressed perilla oil and flavored oil).

(2) Flavored oil

It refers to edible oil (except for pressed sesame oil, sesame oil by supercritical extraction, pressed perilla oil and perilla oil by supercritical extraction) blended with spices, flavoring, natural extracts and seasonings, etc. (edible fat and oil content of not less than 50%); and used for flavoring food during food preparation or processing.

(3) Processed fat and oil

It refers to oil refined to be fit for human consumption by changing physical and chemical properties of oil through hydrogenation, fractionation and transesterification of vegetable or animal fats and oils.

(4) Shortening

It refers to vegetable or animal fat and oil in solid or liquid form used with/without the addition of food additives to provide processability, such as plasticity and emulsibility, etc.

(5) Margarine

It refers to products in solid or liquid form produced by mixing vegetable or animal fat and oil (including milk fat) with water, food and food additives, etc. and emulsifying them. (However, in the case milk fat is used as

ingredient, the fat content of the product shall be less than 50% as weight ratio)

(6) Imitation cheese

It refers to a product manufactured by adding food or food additives to edible fat and oil and protein ingredients as main ingredients and emulsifying them.

(7) Vegetable cream

It refers to a product processed by adding food or food additives, such as saccharides, etc., to vegetable fat and oil as a main ingredient; and used as a filling or decoration for cakes or bread, or for enhancing the flavor of coffee or food.

(8) Other edible fat and oil products

Other edible fat and oil products refers to products processed using vegetable or animal fats and oils as main ingredients (except for pressed sesame oil and pressed perilla oil).

5) Specifications

Type Item	Blended edible oil		Flavored oil
(1) Acid value	Not more than 0.6 (not more than 4.0 for pressed oil)		Not more than 3.0
(2) Peroxide value	-		
(3) Iodine value	-		-
(4) Tar colors	-		Shall not be detected
(5) Antioxidant (g/kg)	No antioxidants shall be detected except for the following		-
	Butylated hydroxyanisole (BHA); Dibutyl hydroxy toluene; Tert-butylhydroquinone	Not more than 0.2 (When used in combination, the sum of butylated hydroxyanisole (BHA); dibutyl hydroxy toluene; and tert-butylhydroquinone shall not be more than 0.2)	
	Propyl gallate	Not more than 0.1	

Type Item	Processed fat and oil	Shortening	Margarine
(1) Crude fat (%)	-	-	Not less than 80.0 (Except for low fat margarine, which shall be not less than 10.0 and not more than 80.0)
(2) Acid value	Not more than 0.6	Not more than 0.8 (except those for restaurant or business use rather than for retail distribution or sale, and that are added with emulsifier, such as lecithin and glycerin esters of fatty acids, etc.)	Not more than 1.0 (except where milk fat or lecithin or glycerin esters of fatty acids, etc. are used.)
(3) Peroxide value	Not more than 3.0	-	-
(4) Tar colors	-	-	Shall not be detected
(5) Antioxidant (g/kg)	No antioxidants shall be detected except for the following.		
	Butylated hydroxyanisole (BHA); Dibutyl hydroxy toluene; Tert-butylhydroquinone	Not more than 0.2 (When used in combination, the sum of butylated hydroxyanisole (BHA); dibutyl hydroxy toluene; and tert-butylhydroquinone shall not be more than 0.2.)	
	Propyl gallate	Not more than 0.1	
	-	-	Not more than 0.1 (When used in combination with disodium ethylenediaminetetraacetate, the sum of disodium ethylenediaminetetraacetate dihydrate shall not be more than 0.1 g/kg)
(6) Preservatives (g/kg)	-	-	No preservatives shall be detected except for the following:
			Sodium

			dehydroacetic acid (as dehydroacetic acid)
			Benzoic acid; sodium benzoate; potassium benzoate; calcium benzoate Not more than 1.0 (as benzoic acid)
			Benzoic acid; sodium benzoate; potassium benzoate; calcium benzoate Not more than 1.0 (as benzoic acid)
			When used in combination with the above (benzoic acid and sorbic acid-type) preservatives; Not more than 1.0 [as the sum of benzoic acid and sorbic acid. However, for low fat margarine (fat spread), not more than 2.0 as the sum of benzoic acid and sorbic acid; and benzoic acid shall not be more than 1.0.]

Type Item	Imitation cheese	Vegetable cream
(1) Water (%)	-	Not more than 8.0 (only applicable to powder products)
(2) Coliforms	n=5, c=1, m=0, M=10	n=5, c=1, m=0, M=10 (however, dried products are excluded)
(3) Tar colors other than those permitted	Shall not be detected	-

Type Item	Other edible fat and oil products
(1) Acid value	Not more than 3.0
(2) Coliform s	n=5, c=1, m=0, M=10

	(only applicable to pasteurized products)
(3) Bacterial count	n=5, c=0, m=0 (only applicable to sterilized products)
(4) <i>Escherichia coli</i>	n=5, c=1, m=0, M=10 (only applicable to non-pasteurized products for direct consumption without further processing or heating)

6) Test Methods

(1) Acid value

Test in accordance with “Chapter 8. General Test Methods, 2. Food Component Test Methods, 2.1.5.3.1 Acid Value.”

(2) Peroxide value

Test in accordance with “Chapter 8. General Test Methods, 2. Food Component Test Methods, 2.1.5.3.5 Peroxide Value.”

(3) Iodine value (Wijs method)

Test in accordance with “Chapter 8. General Test Methods, 2. Food Component Test Methods, 2.1.5.3.3 Iodine Value.”

(4) Tar colors

Test in accordance with “Chapter 8. General Test Methods, 3.4 Color Additives.”

(5) Antioxidant

Test in accordance with “Chapter 8. General Test Methods, 3.3 Antioxidant.”

(6) Preservatives

Test in accordance with “Chapter 8. General Test Methods, 3.1 Preservatives.”

(7) Crude fat

Test in accordance with “Chapter 8. 6.3.1.2 Crude fat.”

(8) Water

Test in accordance with “Chapter 8. General Test Methods, 2.1.1 Water, 2.1.1.1 Loss-on-Drying Method, A. Normal Pressure Oven Drying Method.”

However, drying time shall be 1 hour at 105°C.

(9) *Escherichia coli*

Test in accordance with “Chapter 8. General Test Methods, 4. Microbiological

Test Methods, 4.8 *Escherichia coli*.”

(10) Coliforms

Test in accordance with “Chapter 8. General Test Methods, 4. Microbiological Test Methods, 4.7 Coliforms.”

(11) Bacterial count

Test in accordance with “Chapter 8. General Test Methods, 4. Microbiological Test Methods, 4.5.1 General Bacterial Count.”