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China Issued National Food Safety Standard for Vegetable Oil

Report Categories:
FAIRS Subject Report

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Report Highlights:

On June 21, 2018, the National Health Commission (NHC) and the State Administration for Market Regulation (SAMR) jointly issued the National Food Safety Standard for Vegetable Oil (GB2716-2018), which was implemented on December 21, 2018. This standard applies to crude vegetable oil, edible vegetable oil, edible vegetable blend oil and various edible vegetable oils used in frying food. It does not apply to edible oil products, such as edible hydrogenated oil, margarine, shortening, cocoa butter substitute, whipped cream, and powdered oil. Please note that the comment process has ended and the standard is finalized. This report provides an unofficial translation of the standard.

General Information:

BEGIN TRANSLATION

National Food Safety Standard for Vegetable Oil

Preamble

This standard replaces GB2716-2005 (Hygienic Standard for Edible Vegetable Oil) and GB7102.1-2003 (Hygienic Standard for Edible Vegetable Oils Used in Frying Food).

Compared with GB2716-2005 and GB 7102.1-2003, this standard has the following main amendments:

- Modified the name of the standard to “National Food Safety Standard Vegetable Oil”;
- Modified the scope;
- Modified the terms and definitions;
- Modified the physical and chemical indices;
- Added the requirements for use of food nutrition fortification;
- Added the requirements for labelling;
- Added the Annex A.

National Food Safety Standard

Vegetable Oil

1. Scope

This standard is applicable to the crude vegetable oil, edible vegetable oil, edible vegetable blend oil and various edible vegetable oils used in frying food.

This standard does not apply to edible oil products.[1]

2. Terms and Definitions

2.1 Crude vegetable oil

Crude oil produced from oilseeds for the production of edible vegetable oil, not for direct food consumption.

2.2 Edible vegetable oil

Edible oil produced from oilseeds or crude vegetable oil.

2.3 Edible vegetable blend oil

Edible oil blended by two or more than two edible vegetable oils.

3. Technical Requirements

3.1 Requirements on raw materials

3.1.1 Edible vegetable oil seeds should comply with provisions of GB 19641.[2]

3.1.2 Other materials should comply with provisions of relevant national food safety standards and regulations.

3.1.3 The extraction solvent should comply with provisions of GB 1886.52[3] and relevant regulations.

3.2 Sensory Requirements

Sensory indices should comply with stipulations in the Table 1.

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[1] Editor's note: edible oil products include edible hydrogenated oil, margarine, shortening, cocoa butter replacer, whipped cream, powdered oil and other edible oils and fats products.
[2] The National Food Safety Standard for Edible Vegetable Oil Seeds (GB 19641)
[3] The National Food Safety Standard Food Additive Vegetable Oil Solvent (Hexanes) (GB1886.52)

Table 1 Sensory Requirements

Item	**Requirements**	**Test Methods**
Color	With color the product should have.	Take certain amount of sample and pull it into 50mL beaker, observe color under the natural light. Place the sample in a 150mL beaker, heat in a water bath to 50°C, stir rapidly with a glass rod, smell it, and taste it after rinsing with warm water.
Flavor and taste	With smell and taste the product should have, no smell of burnt, rancid or other peculiar odor.	
Condition	With the condition the product should have; no visible foreign matters.	

3.3 Physical and Chemical Indices

Physical and chemical indices should comply with stipulations in Table 2.

Table 2 Physical and Chemical Indices

Item		Index			Testing Methods
		Crude vegetable oil	Edible vegetable oil (including blend oil)	Edible vegetable oils used in frying food	
Acid value (KOH)/ (mg/g)					
Rice bran oil	≤	25			
Palm oil, corn oil, olive oil, cotton seed oil, and coconut oil	≤	10	3	5	GB5009.229
Others	≤	4			
Peroxide value/(g/100g)	≤	0.25	0.25	-	GB5009.227
Polar component (%)	≤	-	-	27	GB5009.202
Extraction solvent residue (mg/kg)	≤	-	20	-	GB 5009.262
Free gossypol/(mg/kg)					
Cotton seed oil	≤	-	200	200	GB5009.148
Note: the items marked "-" are not tested.					
[a] For expressed oil, the solvent resident should not be detected (if the detected value of solvent resident is less than 10 mg/kg, it is regarded as not detected).					

3.4 Limits of Contaminants and Mycotoxins

3.4.1 Limits of contaminants should comply with provisions of GB 2762.[4]

3.4.2 Limits of mycotoxins should comply with provisions of GB 2761.[5]

3.5 Limits of Pesticide Residue

Limits of pesticide residue should comply with provisions of GB 2763,[6] relevant national regulations and public notices.

3.6. Food Additives and Nutritional Fortifications

3.6.1 The use of food additive should comply with GB 2760.[7] The use of food nutrition fortification should comply with GB 14880.[8]

4. Other

4.1. The single variety edible vegetable oil should not be added other oil.

4.2 The blended vegetable oil products should be named "Edible Vegetable Blend Oil."

4.3. Labels of edible vegetable blend oil should indicate the percentages of different edible vegetable oils.

4.4. Labels of edible vegetable blend oil may indicate the name and content of fatty acid composition with more than 2% (percentage in the total fatty acid quantity); format and requirements should follow the Annex A.

[4] Editor's note: National Food Safety Standard for Maximum Levels of Contaminants in Foods (GB 2762)
[5] Editor's note: National Food Safety Standard for Maximum Levels of Mycotoxins in Foods (GB 2761)
[6] Editor's note: National Food Safety Standard for Maximum Residue Limits for Pesticides in Food (GB 2763)
[7] Editor's note: National Food Safety Standard for Uses of Food Additives (GB 2760)
[8] Editor's note: National Food Safety Standard for Use of Nutritional Fortification Substances in Foods (GB 14880)

Annex A

(Informative Annex)

Format and Requirements for Labeling of Composition of Fatty Acid in Edible Vegetable Blend Oil

A.1 Format of Labeling of Composition of Fatty Acid with More Than 2% in Edible Vegetable Blend Oil

Please view Table A.1 for format of labeling of composition of fatty acid more than 2% in edible vegetable blend oil.

Type of Fatty Acid Composition	Name of the Fatty Acid	Content
Saturated fatty acid	Palmitic acid (C16:0)	%
	Stearic acid (C18:0)	%
	Arachidic acid (C20:0)	%
	Behenic acid (C22:0)	%
Monounsaturated fat	Palmitoleic acid (C16:1)	%
	Oleic acid (C18:1)	%
	Eicosenoic acid (C20:1)	%
	Erucic acid (C22:1)	%
Polyunsaturated fatty acids	Linoleic acid (C18:2)	%
	Linolenic acid (C18:3)	%

A.2 Acceptable error range for content of fatty acid composition in Edible Vegetable Blend Oil

Please view Table A.2 for acceptable error range for content of fatty acid composition.

Table A.2 Acceptable error range for content of fatty acid composition

Item	Content	Testing Method	Acceptable Error Range
Fatty Acid	≥10%	GB 5009.168	85%~115% labeled value
	2% ~10%		50%~150% labeled value