



National Standards of People's Republic of China

GB 2716-~~2005~~**XXXX**

~~Substitutes GB-2716-1998, GB/T-13103-1991, GB-15197-1994~~

~~Hygienic~~ National Food Safety  
Standard ~~for~~ Edible Vegetable Oil  
(Draft)

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## Preamble

**All components of this standard are mandatory.**

This standard substitutes ~~and revocates~~ GB2716-2005 Hygienic Standard for Edible Vegetable Oil, GB/T13103-1991 Hygienic Standard for Salad Oil, and GB7102.1-2003~~15197-1994 Hygienic Standard for Edible Vegetable Oils Used in Frying Food~~Hygienic Standard for ~~Refined Edible Vegetable Oil~~.

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

- The scope is revised and expanded and the "edible vegetable blend oil" is added.
- The definitions of "vegetable crude oil" and "vegetable cooking oil" are revised and the definition of "edible vegetable blend oil" is added.
- In the physical and chemical parameters, the parameter "insoluble impurities" and its test methods are added.
- In the physical and chemical parameters, the parameters of acid value of "vegetable crude oil" and "edible vegetable oils used in frying food" are revised.
- In the physical and chemical parameters, the parameter "dissolvent residue in the extracted oil" of the "edible cooking vegetable oil" is revised.
- In the physical and chemical parameters, the parameter "carbonyl value" of the "edible vegetable oils used in frying food" is deleted.
- In the physical and chemical parameters, the parameter "free gossypol" of the cottonseed oil of the "edible vegetable oils used in frying food" is added.
- Contaminants limits: the provisions of GB 2762 are referred directly.
- Mycotoxins limits: the provisions of GB 2761 are referred directly.
- The requirements of the use of "nutritional supplements" are added and the provision of GB 14880 are referred directly.
- The requirements of labels of the "vegetable cooking oil" and the "edible vegetable blend oil" are added.

## National Food Safety Standard Edible Vegetable Oil

### 1. Scope

This standard ~~stipulates the hygienic indices and testing methods for~~ is applicable to the crude vegetable oil, edible vegetable oil, edible vegetable blend oil and all the edible vegetable oils used in frying food

~~as well as hygienic requirements for food additives, packaging, labeling, storage, and transportation.~~

~~This standard applies to crude vegetable oil, edible vegetable oil,~~ but not applicable to edible oils and fats products (hydrogenated oil and margarine, etc.).

### 2. Referenced Standards

~~The clauses in the following documents have been quoted and become provisions of this standard. For those quoted documents with dates, their modifications (not including corrections on printing errors) and revised versions do not apply to this standard. However, parties having reached the agreement based on this standard are encouraged to study whether the latest versions of the documents are applicable. For quoted documents without dates, their latest versions apply to this standard.~~

~~GB2760——Hygienic Standard of Food Additive Application  
GB 2763——Maximum levels of pesticide residues in food  
GB/T5009.11 Determination of Gross Arsenic and Inorganic Arsenic in Food  
GB/T5009.12 Determination of Lead in Food  
GB/T5009.22 Determination of Aflatoxin B<sub>1</sub> in Food  
GB/T5009.27 Determination of Benz[a]pyrene in Food  
GB/T5009.37 Analytical Method on Hygiene Standard of Edible Vegetable Oil  
GB8955——Hygienic Norms for Edible Vegetable Oil Producers  
GB 16629——Solvent for vegetable oils extraction  
GB/T 17374——Sales Packaging of Edible Vegetable Oil  
GB19641——Hygienic standard for Oilseeds~~

### 2.3. Terms and definition

~~This standard adopts the following terminologies and definitions~~

#### 2.3.1 Crude vegetable oil

Raw oil extracted from vegetable oilseeds for the production of edible vegetable oil, but no for the direct consumption.

#### 2.3.2 Edible vegetable oil

Edible vegetable fat processed from vegetable oilseeds or crude vegetable oil.

#### 2.3 Edible vegetable blend oil

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

### 4.3. Index Technical Requirements

#### 3.4.1 Requirements on raw ~~and adjuvant~~ materials

~~3.4.1.1 Raw material~~ Edible vegetable oilseeds shall comply with provisions of GB 19641.

3.1.2 Other materiales: shall comply with the the relative national standards of food safety and other regulations.

~~34.1.32~~The extraction dissolvent shall comply with GB16629 and other regulations.

### ~~34.2~~ Sensory requirements

~~Products should have normal color, transparency, flavor and taste, without burnt, rancid or other peculiar odor. Sensory indices shall comply with stipulations it the Table 1.~~

**Table 1 Sensory requirements**

<u>Item</u>	<u>Requirements</u>	<u>Test Methods</u>
Color	With normal color	<u>GB/T 5009.37</u>
Flavor and taste	With normal flavor and taste, without burnt, rancid or other peculiar odor.	

### ~~34.3~~ Physical and Chemical Requirements

Physical and chemical indices should comply with stipulations in Table ~~42~~.

**Table ~~42~~ Physical and Chemical Indices**

Item	Index			Test Methods
	Crude vegetable oil	Edible vegetable oil (included blend oil)	Edible vegetable oils used in frying food	
<u>Insoluble inpurities</u>	$\leq$ 0.20	0.05	=	<u>GB/T 5529</u>
Acid value <sup>*,-</sup> (KOH)/ (mg/g)	$\leq$			<u>GB/T 5009.37</u>
<u>Palm oil and rice bran oil</u>	$\leq$ 10	3	3	
<u>Others</u>	$\leq$ 4			
Peroxide value <sup>*/</sup> (g/100g)	$\leq$ 0.25	0.25	=	
<u>Polar component / (%)</u>	$\leq$ =	=	27	<u>GB/T 5009.202</u>
Extraction dissolvent residue/ (mg/kg)	$\leq$ 100	2050	=	<u>GB/T 5009.37</u>
Free gossypol/ ( %)	$\leq$ -	0.02	0.02	
<u>Gross arsenic (As), (mg/kg)</u>	$\leq$ 0.1	0.1		
<u>Lead (Pb), (mg/kg)</u>	$\leq$ 0.1	0.1		
<u>Alatoxin B1, (ug/kg)</u>	$\leq$			
<u>Peanut oil, corn germ oil</u>	$\leq$ 20	20		
<u>Other oils</u>	$\leq$ 10	10		
<u>Benz[a]pyrene, (ug/kg)</u>	$\leq$ 10	10		
<u>Pesticide residue</u>	Implemented in accordance with GB2763			
<del>* If the items in the Table of a specified product have been established in a mandatarly national standard, the established requirements should be implemented.</del>				

### **3.4 Limits of Contaminants and Biotoxins**

3.4.1 Contaminants shall comply with provision of GB 2762.

3.4.2 Biotoxins shall comply with provisions of GB 2761.

### **3.5 Limits of pesticide residue**

Limits of pesticide residue shall comply with GB 2763 and other relative national regulations and communications.

### **5.3.6. Food Additives and Nutritional Supplements**

3.6.5.1 The use of Food additive quality shall comply with corresponding standards and relevant stipulations. GB 2760.

5.2 The varieties and amount in the application of food additives should comply with stipulations of GB2760. The use of nutritional supplements shall comply with GB 14880.

### **6. Production and Processing**

Should comply with GB8955 and other hygiene related requirements.

### **7. Packaging**

7.1 Products should be packaged with materials or containers that comply with hygienic requirements. The container should be clean, dry and sealed.

7.2 The packaging for sale should comply with stipulations of GB/T 17374.

### **4.8. Labeling**

4.1. The labeling of packaging for sale should comply with corresponding standards and stipulations. The edible vegetable oil with the label of only one variety shall not be blended with other oils.

4.2. The labeling of products edible vegetable oil processed from transgenic materials shall comply with the relative government national regulations.

4.3 The products of edible vegetable blend oil shall be named as " edible vegetable blend oil "

4.4 In the labels of edible vegetable blend oil, the proportion of different edible vegetable oils shall be specified.

### **9. Storage and Transportation**

9.1 Edible vegetable oil should not be stored with other non-edible vegetable oil, and the storage should be equipped with measures against rain, sun exposure, contamination, and explosion.

9.2 The inner layer and valve of oil container should not be made from bronze material.

Larger containers should be filled with nitrogen or carbon dioxide if possible, and must not be blended with air.

9.3 Containers designated for storage of processed oil must be explicitly labeled, regularly cleaned or treated, and dried before refilling with oil.

9.4 The product should be protected against contamination during transportation, and must not be transported with other toxic or hazardous goods.

**10. Testing Methodologies**

~~10.1. Sensory~~

~~Determined in accordance with stipulations of GB/T5009.37.~~

~~10.2. Physical and chemical indices~~

~~10.2.1 Acid value, peroxide value, extraction solvent residue, free gossypol~~

~~Determined in accordance with stipulations of GB/T5009.37.~~

~~10.2.2 Gross arsenic~~

~~Determined in accordance with stipulations of GB/T5009.11.~~

~~10.2.3 Lead~~

~~Determined in accordance with stipulations of GB/T5009.12.~~

~~10.2.4 Aflatoxin B1~~

~~Determined in accordance with stipulations of GB/T5009.22.~~

~~10.2.5 Benz[a]pyrene~~

~~Determined in accordance with stipulations of GB/T5009.27.~~

END