



National Standards of People's Republic of China

GB 2716-2005

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

Hygienic Standard for Edible Vegetable Oil

(Nota: *traducción no oficial*)

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Preamble

All components of this standard are mandatory.

This standard substitutes and revocates GB2716-1988 Hygienic Standard for Edible Vegetable Oil, GB/T13103-1991 Hygienic Standard for Salad Oil, and GB15197-1994 Hygienic Standard for Refined Edible Vegetable Oil.

In the process of revising this standard, CAC Codex Stan 210-1999 Codex Standard Named Vegetable Oils (hereinafter referred to as CAC Standard) of the Codex Alimentarius Commission (CAC) has been referenced, and index requirements for crude vegetable oil have been added.

Compared with GB2716-1988, GB/T 13103-1991, and GB15197-1994, this standard has made the following main amendments:

- The text format has been modified in accordance with GB/T1.1-2000.
- Original standards GB2716-1988, GB/ T13103-1991 and GB15197-1994 have been merged into this standard.
- Added in classification of crude vegetable oil. Products have been classified into crude vegetable oil and edible vegetable oil.
- Eliminated carbonyl value index.
- Added in items on raw and adjuvant materials, food additive, pesticide residue, hygienic requirements in production or processing, packaging, labeling, transportation, and storage.

This standard will be implemented from 1 of october of 2005 with a transtion period of one year. The products produced before 1 of october of 2005 and meet the relative requirements can be sold until 30 of september of 2006.

This standard is proposed by and administered by the Ministry of Health of the People Republic of China.

The drafting agencies of this standard: Health Supervision Institute of Shanghai Health Bureau, Center of Health Supervision of the Ministry of Health, Centers for Disease Prevention and Control of Shanghai, Jilin, and Guangxi, Research Institute of Sciences of State Grain Administration, Exit-entry Inspection and Quarantine Bureaus of Shanghai, Guangdong, Tianjin, and Ningbo, COFCO, Quality Inspection Center for Grains and Their Products of the Ministry of Agriculture (Harbin), China Chamber of Commerce for I/E Foodstuffs, Native Produce and Animal By-Products, Quality Inspection Center for Oilseeds of the Ministry of Agriculture.

The main drafting persons of this standard: Xu Xin, Zheng Yunyan, Liu Jiancheng, Hao Xicheng, Guo Liping, Cui Lu, Cai Xiucheng.

The release history of the standard versions substituted by this standard:

- GB2716-1981, GB2716-1985, GB 2716-1988
- GB/T 13103-1991,

GB2716-2005

Hygienic Standard for Edible Vegetable Oil**1. Scope**

This standard stipulates the hygienic indices and testing methods for crude vegetable oil, edible vegetable oil, 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 hydrogenated oil and margarine.

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 ₁ 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

3. Terms and definition

This standard adopts the following terminologies and definitions

3.1 Crude vegetable oil

Raw oil extracted from vegetable oilseeds.

3.2 Edible vegetable oil

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

4. Index Requirements**4.1 Requirements on raw and adjuvant materials**

4.1.1 Raw material shall comply with provisions of GB 19641.

4.1.2 The extraction dissolvent shall comply with GB16629 and other regulations.

4.2 Sensory requirements

Products should have normal color, transparency, flavor and taste, without burnt, rancid or other peculiar odor.

4.3 Physical and Chemical Requirements

Physical and chemical indices should comply with stipulations in Table 1.

Table 1 Physical and Chemical Indices

Item	Index	
	Crude vegetable oil	Edible vegetable oil
Acid value*, (KOH)/ mg/g	≤ 4	3
Peroxide value*/(g/100g)	≤ 0.25	0.25
Extraction dissolvent residue/ (mg/kg)	≤ 100	50
Free gossypol/ (%) Cotton seed oil	≤ -	0.02
Gross arsenic (As), (mg/kg)	≤ 0.1	0.1
Lead (Pb), (mg/kg)	≤ 0.1	0.1
Alatoxin B1, (ug/kg) Peanut oil, corn germ oil Other oils	≤ 20 10	20 10
Benz[a]pyrene, (ug /kg)	≤ 10	10
Pesticide residue	Implemented in accordance with GB2763	
* If the items in the Table of a specified product have been established in a mandatory national standard, the established requirements should be implemented.		

5. Food Additives

5.1 Food additive quality should comply with corresponding standards and relevant stipulations.

5.2 The varieties and amount in the application of food additives should comply with stipulations of GB2760.

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.

8. Labeling

8.1. The labeling of packaging for sale should comply with corresponding standards and stipulations.

8.2. The labeling of products processed from transgenic materials should comply with the relative government regulations.

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 dissolvent 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.