



USDA Foreign Agricultural Service

# GAIN Report

Global Agriculture Information Network

Template Version 2.09

Voluntary Report - public distribution

**Date:** 7/29/2004

**GAIN Report Number:** CH4025

## China, Peoples Republic of

### FAIRS Product Specific

### GB1534-2003 Peanut Oil Standard G/TBT/N/CHN/24

## 2004

**Approved by:**

Ralph Gifford  
U.S. Embassy, Beijing

**Prepared by:**

Adam Branson, Wu Xinping, and Wu Bugang

---

**Report Highlights:**

This report contains an UNOFFICIAL translation of China's approved National Standard for Peanut Oil (GB1534-2003). The Standard, now scheduled for implementation on October 1, 2004, was notified to the WTO on July 28, 2003 (G/TBT/N/CHN/24). For reference, the United States has not established standards for peanut oil. This Standard for crude, pressed, and solvent extracted peanut oil is more detailed than the corresponding Codex standard, but appears reasonably consistent.

---

Includes PSD Changes: No  
Includes Trade Matrix: No  
Unscheduled Report  
Beijing [CH1]  
[CH]

**Table of Contents**

**Disclaimer** ..... 3

**Background** ..... 3

    Begin Translation ..... 4

**Preamble** ..... 4

**GB 1534-2003 National Standard for Peanut Oil**..... 4

    1. Scope ..... 4

    2. Referenced Standards ..... 5

    3. Terminology and Definitions ..... 5

    4. Classification ..... 7

    5. Quality Requirements ..... 7

    6. Testing Method ..... 10

    7. Inspection Rules ..... 10

    8. Label ..... 11

**G/TBT/N/CHN/24 Peanut Oil WTO Notification** ..... 12

**Disclaimer**

Information in this translated report may not be completely accurate either because policies may change when the regulation is adopted, or because clear and consistent information about these policies was not available. Therefore, U.S. exporters should try to verify all import requirements with their foreign customers, who are normally best informed, before any goods are shipped. Final import approval of any product is subject to the importing country's rules and regulations as interpreted by border officials at the time of product entry. In the event of any errors or omissions in this translation, the original Chinese version shall prevail.

**Background**

China's previous National Standard for Peanut Oil has been replaced by the version notified to the World Trade Organization on July 28, 2003 (G/TBT/N/CHN/24). This National Standard for Peanut Oil (GB1534-2003) appears reasonably consistent with Codex Standards and is scheduled for implementation on October 1, 2004.

The Standard is for crude, pressed, and solvent extracted peanut oil. The quality standards in table 1 apply to crude peanut oil, while standards in table 2 apply to finished product pressed peanut oil, and table 3 applies to finished product solvent extracted peanut oil.

## Begin Translation

### Preamble

- Part of Table 1, Table 2, Table 3 of Clauses 5.2 and Clause 5.4, Chapter 7 and Chapter 8, are mandatory, while the rest are recommended.
- This Standard revises and combines GB 1534-1986 "Peanut Oil" and GB 8615-1988 "Aromatic Peanut Oil".
- The main technical differences between this Standard and GB 1534-1986 and GB 8615-1988 include:
  - o The structure, technical elements and descriptive rules of this Standard are modified according to GB/T 1.1-2000 "Standardized Working Guide Rules, Part 1: Structure and Writing Rules of the Standard"; classification and grading are made according to the method of peanut oil processing; characteristic indexes and quality indexes contained in the above-mentioned Standard are adjusted; and the relevant indicators in the quality indexes are revised.
- Related indices of this Standard are modified with reference to the International Codex Alimentarius Commission Standard.
- This Standard shall replace GB 1534-1986 "Peanut Oil" and GB 8615-1988 "Aroma Peanut Oil" on the date of implementation.
- This Standard was proposed and governed by the State Administration of Grain.
- This Standard was drawn up by the Standard Quality Center of the State Administration of Grain and Xi'an Grease, Food And Fodder Quality Supervision, Inspection & Test Center of the State Administration of Grain. Participants include Shandong Laiyang Luhua Peanut Oil Co. Ltd., Qingdao Gaoli Vegetable Oil Co. Ltd., Shanghai Fulinmen Food Co. Ltd. and Shenzhen Nanshun Grease Co. Ltd.
- This Standard was drafted by Tang Ruiming, Long Lingli, Xue Yalin, Chen Yan, Sun Dongwei, Pang Dongmei, Xu Xia and Xia Hongwen

## GB 1534-2003 National Standard for Peanut Oil

### 1. Scope

This Standard stipulates the terminology and their definitions, classification, quality requirements of peanut oil, as well as the inspection method and rules, and the requirements of labeling, package, storage and transportation, etc.

This Standard applies to pressed finished product peanut oil, solvent extracted finished product peanut oil, and crude peanut oil.

The crude peanut oil quality indices apply only to the trade of crude peanut oil.

## 2. Referenced Standards

The clauses in the following documents are referenced in this Standard and become the clauses of this Standard. Any modification (except text corrections) or revisions of the referenced documents specified with date shall not apply to this Standard. However, all parties using this Standard shall decide if the latest editions of the following standard apply. All the latest editions of the referenced documents without a date indicated apply to this Standard.

GB 2716 Hygiene Standard for Edible Vegetable Oil  
GB 2760 Hygiene Standard for Food Additives Use  
GB 7718 General Standard for Foodstuff Labels  
GB/T 5490 General Rules for Cereals, Oils And Vegetable Grease Inspection  
GB/T 5524 Inspection, Sampling and Splitting Method of Vegetable Grease  
GB/T 5525-1985 Inspection Method of Transparency, Color, Odor and Taste of Vegetable Grease  
GB/T 5526 Gravity Test Method of Vegetable Grease Inspection  
GB/T 5527 Refractive Exponent Test Method of Vegetable Grease Inspection  
GB/T 5528 Water Content and Volatile Content Test Method of Vegetable Grease and Oil  
GB/T 5529 Impurity Content Test Method of Vegetable Grease and Oil Inspection  
GB/T 5530 Acid Value and Acidity Test of Animal and Vegetable Grease and Oil  
GB/T 5531 Heating Test of Vegetable Grease and Oil Inspection  
GB/T 5532 Iodine Value Measurement of Vegetable Oil  
GB/T 5533 Soap Content Test Method of Vegetable Grease and Oil Inspection  
GB/T 5534 Saponification Value Test Method of Animal and Vegetable Oil Grease and Oil  
GB/T 5535 Unsaponifiable Matter Test Method of Vegetable Grease and Oil Inspection  
GB/T 5538 Peroxide Value Test of Grease and Oil  
GB/T 5539 Grease and Oil Qualitative Test of Vegetable Grease and Oil Inspection  
GB/T 5009.37 Analytical Method of Hygienic Standard for Edible Vegetable Oil  
GB/T 17374 Edible Vegetable Oil Sales Package  
GB/T 17376 Fatty Acid Methyl Ester Preparation of Animal and Vegetable Grease and Oil  
GB/T 17377 Gas Chromatographic Analysis of Fatty Acid Methyl Ester of Animal and Vegetable Grease and Oil  
GB/T 17756-1999 General Technical Specifications for Salad Oil, Annex A and Annex B

## 3. Terminology and Definitions

The following terminology and definitions are applicable to this Standard.

### 3.1. Pressed peanut oil

Oil obtained from peanut by direct pressing.

### 3.2. Solvent extracted peanut oil

Oil obtained from peanut by solvent extraction process.

### 3.3. Crude peanut oil

Untreated peanut oil that is inedible to human beings.

### 3.4. Finished product of peanut oil

Treated peanut oil meeting the quality indexes of this Standard and hygienic requirements of finished product oil and directly edible to human beings.

### 3.5. Refractive index

The sine ratio between incidence angle and refraction ray angle when light enters grease or oil from air.

### 3.6. Specific gravity

The weight ratio between vegetable oil and distilled water of the same volume at 20 degrees Celsius.

### 3.7. Iodine value

The weight in grams of iodine needed for an addition reaction to take place in 100 grams of oil under observed conditions.

### 3.8. Saponification value

Number of milligrams of potassium hydroxide needed to saponify 1 gram of oil.

### 3.9. Unsaponifiable matter

Substances in oil that do not act with alkali and are dissolvable in ether but not dissolvable in water, including sterols, fat-soluble vitamins and pigments, etc.

### 3.10. Fatty acid

The generic term for fatty group monocarboxylic acid, with the general expression of R-COOH.

### 3.11. Color

Color of oil itself, mainly observed from the pigment in oil.

### 3.12. Transparency

The degree of light to penetrate oil.

### 3.13. Moisture and volatile matter

Trace amount of moisture and volatile substances in oil at a certain temperature.

### 3.14. Insoluble impurity

Substances in oil not dissolvable in organic solvent such as petroleum ether etc.

### 3.15. Acid value

Number of milligrams of potassium hydroxide needed to neutralize the free fatty acid in 1 gram of oil.

### 3.16. Peroxide value

Number of millimoles of peroxide in 1 kilogram of oil.

### 3.17. Residual solvent content in oil

Number of milligrams of solvent remaining in 1 kilogram of oil.

### 3.18. Heating test

Heat the oil sample to 280 degree Celsius and observe if there is any educt and color change.

### 3.19. Refrigeration test

Put the oil sample at 0 degree Celsius for a certain period of time and observe the clearness.

### 3.20. Saponified matter content

Content of saponified matter in oil after alkali refining (calculated in sodium oleate).

### 3.21. Smoking point

The temperature at which the oil sample is heated until it is smoking continuously.

#### 4. Classification

Peanut oil is divided into three categories of pressed finished product peanut oil, solvent extracted finished product peanut oil, and crude peanut oil.

#### 5. Quality Requirements

##### 5.1 Characteristic index

Refractive exponent ( $n^{40}$ ):		1.460~1.465
Relative density $d_{20}^{20}$ :		0.914~0.917
Iodine value (I) (g/ 100g):		86~107
Saponification value (KOH) (mg/g):		187~196
Unsaponifiable matter g/kg:		=10
Fatty acid composition (%)		
Fatty acid below 14 carbon		ND~0.1
Amomum acid	C <sub>14:0</sub>	ND~0.1
Palmitinic acid	C <sub>16:0</sub>	8.0~14.0
Palm olefine acid	C <sub>16:1</sub>	ND~0.2
Heptadecanoic acid	C <sub>17:0</sub>	ND~0.1
17 carbon 1 olefine acid	C <sub>17:1</sub>	ND~0.1
Stearic acid	C <sub>18:0</sub>	1.0~4.5
Oleic acid	C <sub>18:1</sub>	35.0~67.0
Linoleic acid	C <sub>18:2</sub>	13.0~43.0
Linolenic acid	C <sub>18:3</sub>	ND~0.3
Arachidic acid	C <sub>20:0</sub>	1.0~2.0
Peanut olefine acid	C <sub>20:1</sub>	0.7~1.7
Docosanoic acid	C <sub>22:0</sub>	1.5~4.5
Docosenoic acid	C <sub>22:1</sub>	ND~0.3
Lignoceric acid	C <sub>24:0</sub>	0.5~2.5
24 carbon 1 olefine acid	C <sub>24:1</sub>	ND~0.3

Note 1: The above indexes are consistent with those in the International Codex Alimentarius Commission Standard CODEX-STAN 210-1999 "Appointed Vegetable Oil Code Standard".

Note 2: ND means must not be detected and is defined as 0.05%.

##### 5.2 Quality grade index

5.2.1. For crude peanut oil quality index, refer to Table 1.

Table 1 Crude Peanut Oil Quality Index

Item	Quality index
Odor, taste	Having the natural odor and taste of crude peanut oil, without off-flavor
Moisture and volatile substance (%)	= 0.20
Insoluble impurities (%)	= 0.20
<b>Acid value (mgKOH/g)</b>	<b>= 4.0</b>
<b>Peroxide value (mmol/kg)</b>	<b>= 7.5</b>
<b>Solvent residue level (mg/kg)</b>	<b>= 100</b>
<b>Note: Bold face font indicates mandatory.</b>	

5.2.2. For quality indexes of pressed finished product peanut oil and solvent extraction finished product peanut oil, refer to Table 2 and Table 3, respectively.

Table 2 Quality Index of Pressed Finished Product Peanut Oil

Item	Quality index	
	Grade 1	Grade 2
Color (color comparator 25.4mm) =	Yellow 15 Red 1.5	<b>Yellow 25 Red 4.0</b>
Odor, taste	Having the natural taste and odor of peanut oil, without offensive taste or odor	<b>Having the natural taste and odor of peanut oil, without offensive taste or odor</b>
Transparency	Clear, transparent	<b>Clear, transparent</b>
Moisture and volatile substance (%) =	0.10	<b>0.15</b>
Insoluble impurities (%) =	0.05	<b>0.05</b>
<b>Acid value (KOH) (mg/g) =</b>	<b>1.0</b>	<b>2.5</b>
<b>Peroxide value (mmol/kg) =</b>	<b>6.0</b>	<b>7.5</b>
<b>Solvent residue level (mg/kg) =</b>	<b>Must not be detected</b>	<b>Must not be detected</b>
Heating test (280 degrees Celsius)	No educt, Lovibond color comparison: Yellow value remains unchanged, while red value increases less than 0.4	<b>Trace amount of educts, Lovibond color comparison: Yellow value remains unchanged, while red value increases less than 4.0 and blue value less than 0.5</b>
<b>Note: Bold face font indicates mandatory.</b>		



Table 3 Quality Index of Solvent Extracted Finished Product Peanut Oil

Item		Quality index			
		Grade 1	Grade 2	Grade 3	Grade 4
Color	(Lovibond color comparator 25.4mm) =	—	—	yellow 25 red 2.0	<b>yellow 25 red 4.0</b>
	(Lovibond color comparator 133.4mm) =	yellow 15 red 1.5	yellow 20 red 2.0	—	—
Odor, taste		No odor, good taste	No odor, good taste	Having the natural taste and odor of peanut oil, without offensive taste or odor	<b>Having the natural taste and odor of peanut oil, without offensive taste or odor</b>
Transparency		Clear, transparent	Clear, transparent	—	—
Moisture and volatile substance (%) =		0.05	0.05	0.10	<b>0.20</b>
Insoluble impurities (%) =		0.05	0.05	0.05	<b>0.05</b>
<b>Acid value (KOH) (mg/g) =</b>		<b>0.20</b>	<b>0.30</b>	<b>1.0</b>	<b>3.0</b>
<b>Peroxide value (mmol/100g) =</b>		<b>5.0</b>	<b>5.0</b>	<b>7.5</b>	<b>7.5</b>
Heating test (280 degrees Celsius)		—	—	No educt, Lovibond color comparison: Yellow value remains unchanged, while red value increases less than 0.4	<b>Trace amount of educts, Lovibond color comparison: Yellow value remains unchanged, while red value increases less than 4.0 and blue value less than 0.5</b>
Soap content (%) =		—	—	0.03	—
Smoking point degrees C =		215	205	—	—
<b>Solvent residue ( mg/kg)</b>		<b>Must not be detected</b>	<b>Must not be detected</b>	<b>= 50</b>	<b>= 50</b>
Note 1: The items marked "-" are not tested. When the solvent residue is less than 10mg/kg in press oil and solvent extracted oil of grade 1 and 2, it is deemed as not detected.					
<b>Note 2: Bold face font indicates mandatory.</b>					

### 5.3 Hygiene indexes

Implemented according to GB 2716, GB 2760 and related National Standards or regulations.

### 5.4 Others

Peanut oil shall not be mixed with other edible oil or inedible oil; and shall not have any added essence or spice.

## 6. Testing Method

6.1 The inspection of transparency, taste and odor shall be carried out according to Chapter 1 and Chapter 3 of GB/T 5525-1985.

6.2 Color inspection shall be carried out according to Chapter 2 of GB/T 5525-1985.

6.3 Relative density inspection shall be carried out according to GB/T 5526.

6.4 Refractive exponent inspection shall be carried out according to GB/T 5527.

6.5 Moisture and volatile substance inspection shall be carried out according to GB/T 5528.

6.6 Insoluble impurities inspection shall be carried out according to GB/T 5529.

6.7 Acid value inspection shall be carried out according to GB/T 5530.

6.8 Heating test shall be carried out according to GB/T 5531.

6.9 Iodine value inspection shall be carried out according to GB/T 5532.

6.10 Soap content inspection shall be carried out according to GB/T 5533.

6.11 Saponification value inspection shall be carried out according to GB/T 5534.

6.12 Unsaponifiable matter inspection shall be carried out according to +GB/T 5535.

6.13 Peroxide value inspection shall be carried out according to GB/T 5538.

6.14 Freezing test shall be carried out according to Annex A to GB/T 17756-1999.

6.15 Smoke point inspection shall be carried out according to Annex B to GB/T 17756-1999.

6.16 Solvent residue inspection shall be carried out according to GB/T 5009.37.

6.17 Oil qualitative test shall be carried out according to GB/T 5539. The qualitative test and peanut oil characteristic index (5.1) shall be deemed as the comprehensive judgment basis.

6.18 Fatty acid composition inspection shall be carried out according to GB/T 17376-17377.

6.19 Hygiene index inspection shall be carried out according to GB/T 5009.37.

## 7. Inspection Rules

### 7.1 Sampling

Peanut oil sampling shall be carried out according to GB/T 5524.

## 7.2 Ex-work inspection

7.2.1 Inspection shall be made to each batch, and inspection report shall be issued.

7.2.2 Inspection shall be made according to the stipulations in 5.2 of this Standard.

## 7.3 Type inspection

7.3.1 When there are major changes in raw materials, equipment or process, or as required by quality supervision authorities, type inspection shall be carried out.

7.3.2 Inspection shall be made according to the stipulations in chapter 5 of this Standard.

## 7.4 Judgment rules

7.4.1 If the product is not labeled for quality grade, it shall be rejected.

7.4.2 In case one item in the grade indices fails, the product shall be rejected.

## 8. Label

Apart from the stipulations and requirements of GB 7718, the following clauses shall be followed:

### 8.1 Product name

8.1.1 All products with the mark of "peanut oil" shall conform to this Standard.

8.1.2 Pressed peanut oil and solvent extracted peanut oil shall be marked with "pressed" or "solvent extracted" in the product label.

### 8.2 Country of origin

Country name of the origin of raw materials shall be indicated.

## 9. Package, Storage and Transportation

### 9.1 Package

Package shall conform to GB/T 17374 and relevant state regulations and requirements.

### Storage

9.2 It shall be stored in a cool, dry and dark place, and not be mixed with any harmful or toxic articles.

### 9.3 Transportation

During transportation, it shall be protected from sunshine, rain, leakage, pollution and losing its label. Bulk shipment shall be carried out by using special vehicle that must be clean and hygienic.

## Reference

[1] International Codex Alimentarius Commission Standard CODEX-STAN 210-1999 "Appointed Vegetable Oil Code Standard"

## G/TBT/N/CHN/24 Peanut Oil WTO Notification

**World Trade Organization**  
Committee on Technical Barriers to Trade

G/TBT/N/CHN/24  
28 July 2003 (03-3995)  
Original: English

**NOTIFICATION**

The following notification is being circulated in accordance with Article 10.6.

<b>1.</b>	<b>Member to Agreement notifying:</b> <u>THE PEOPLE'S REPUBLIC OF CHINA</u> <b>If applicable, name of local government involved (Articles 3.2 and 7.2):</b>
<b>2.</b>	<b>Agency responsible:</b> Standardization Administration of China (SAC) <b>Name and address (including telephone and fax numbers, e-mail and web-site addresses, if available) of agency or authority designated to handle comments regarding the notification shall be indicated if different from above:</b>
<b>3.</b>	<b>Notified under Article 2.9.2 [X], 2.10.1 [ ], 5.6.2 [ ], 5.7.1 [ ], other:</b>
<b>4.</b>	<b>Products covered (HS or CCCN where applicable, otherwise national tariff heading. ICS numbers may be provided in addition, where applicable):</b> Peanut oil, ICS: 67.200.10
<b>5.</b>	<b>Title, number of pages and language(s) of the notified document:</b> China National Standard GB 1534-XXXX Peanut Oil (10 pages, in Chinese)
<b>6.</b>	<b>Description of content:</b> For peanut oil, this standard specifies the definitions, classification, quality characteristics, test methods and rules as well as requirements on labeling, packaging, storage and transport.
<b>7.</b>	<b>Objective and rationale, including the nature of urgent problems where applicable:</b> To protect public health and safety.
<b>8.</b>	<b>Relevant documents:</b>
<b>9.</b>	<b>Proposed date of adoption:</b> 90 days after circulation by WTO Secretariat <b>Proposed date of entry into force:</b> 6 months after adoption
<b>10.</b>	<b>Final date for comments:</b> 60 days after circulation by WTO Secretariat
<b>11.</b>	<b>Texts available from: National enquiry point [ X ] or address, telephone and fax numbers, e-mail and web-site addresses, if available of the other body:</b>  China WTO/TBT National Enquiry Point Tel: +86 10 82260618 Fax: +86 10 82262448 E-mail: tbt@aqsiq.gov.cn