

**Voluntary Report** – Voluntary - Public Distribution

**Date:** August 01, 2024

**Report Number:** CH2024-0098

**Report Name:** Draft National Food Safety Standard Food Additive Acorn Shell Brown Notified to WTO

**Country:** China - People's Republic of

**Post:** Beijing

**Report Category:** FAIRS Subject Report, Sanitary/Phytosanitary/Food Safety, WTO Notifications, Trade Policy Monitoring

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**Report Highlights:**

On July 11, 2024, China notified the draft National Food Safety Standard for the Food Additive Acorn Shell Brown to the World Trade Organization (WTO) under G/SPS/N/CHN/1309. China's SPS Enquiry Point at [sps@customs.gov.cn](mailto:sps@customs.gov.cn) will accept comments until September 9, 2024. This report provides an unofficial translation of the draft standard. Stakeholders should conduct their own review of the standard and provide comments as necessary.

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**Report Summary:**

On July 11, 2024, China notified the draft National Food Safety Standard Food Additive Acorn Shell Brown to the World Trade Organization (WTO) under [G/SPS/N/CHN/1309](#). China's SPS Enquiry Point at [sps@customs.gov.cn](mailto:sps@customs.gov.cn) will accept comments until September 9, 2024.

The notified standard is a new regulation that specifies the technical requirements and testing methods for food additive acorn shell brown. It is applicable to the food additive acorn shell brown which uses acorn shells as raw materials through various processes of extracting, separating, concentrating, and drying.

This report provides an unofficial translation of the draft notified standard. Stakeholders should conduct their own review of the standard.

## BEGIN TRANSLATION

### National Food Safety Standard

#### Food Additive Acorn Shell Brown

##### 1. Scope

This standard is applicable to acorn shell brown, a food additive made from acorn shells through processes such as aqueous extraction, separation, concentration, and drying.

##### 2. Technical Requirements

###### 2.1 Sensory requirements

Sensory requirements shall conform to the provisions in Table 1.

**Table 1: Sensory Requirements**

Items	Requirements	Testing Method
Color	Brown to dark brown	Take an appropriate amount of sample and place it in a clean and dry white porcelain plate. Observe its color and condition under natural light and smell it.
State	Powder	
Odor	It has a specific odor of acorn shells and no abnormal smell.	

###### 2.2 Physical and Chemical Indicators

It shall conform to the provisions in Table 2.

**Table 2: Physical and Chemical Indicators**

Items	Indicators	Testing Method
Color value $E_{1\%}^{1\text{cm}}$ (500 nm)	$\geq$ 10	A.3 in Appendix A
Drying loss, w /%	$\leq$ 10.0	Direct Drying Method in GB 5009.3
Ash content, w /%	$\leq$ 15.0	GB 5009.4
pH	7.0~9.0	A.4 in Appendix A
Lead (Pb)/(mg/kg)	$\leq$ 3.0	GB 5009.75 or GB 5009.12
Arsenic (As)/(mg/kg)	$\leq$ 2.0	GB 5009.76 or GB 5009.11

Note: Commercialized acorn shell brown products should be made from acorn shell brown that comply with this standard. Food auxiliaries such as maltodextrin and water that meet relevant requirements, and/or emulsifiers, antioxidants, and acidity regulators that meet the quality specifications of food additives can be added. The color value indicator should conform to the claimed value, and the form can be in powder, liquid, or paste.

## **Appendix A Testing Method**

### **A.1 General Provisions**

Unless otherwise specified, the reagents and water used in this standard refer to analytical grade reagents and third grade water as specified in GB/T 6682. The standard solutions, impurity determination standard solutions, preparations, and products used in the experiment shall be prepared in accordance with the provisions of GB/T 601, GB/T 602, and GB/T 603. When the solvent used in the test is not specified, it refers to aqueous solution.

### **A.2 Identification Test**

#### **A.2.1 Solubility**

Soluble in water or ethanol and insoluble in non-polar solvents.

#### **A.2.2 Color**

0.1% sample of 6 mol/L sodium hydroxide solution appears brown, while 0.1% sample of 6 mol/L hydrochloric acid solution appears reddish brown and it turns yellow under acidic conditions (pH<4).

#### **A.2.3 Maximum absorption peak**

Take the sample solution from A.3.2 color valence determination and detect it with a UV spectrophotometer. The maximum absorption peak is observed within the wavelength range of  $275 \text{ nm} \pm 5 \text{ nm}$ .

### **A.3 Determination of Color Value $E_{1\text{cm}}^{1\%}$ (500 nm)**

#### **A.3.1 Instruments and equipment**

UV spectrophotometer.

#### **A.3.2 Analysis steps**

Weigh 0.05 g to 0.10 g of the sample, accurate to 0.0001 g, dissolve in water and make up to 100 mL, shake it well. Use a pipette to absorb 5 mL of the above solution while shaking well, and then dilute to 50 mL to obtain the sample solution. Take this solution and place it in a 1 cm colorimetric dish. Use water as a blank control and measure the absorbance at a wavelength of 500 nm using a UV spectrophotometer. The absorbance should be controlled between 0.3 and 0.7, otherwise the concentration of the sample solution should be adjusted, and the absorbance should be measured again.

#### **A.3.3 Calculation of results**

Calculate the color valence  $E_{1\text{cm}}^{1\%}$  (500 nm) according to equation (A.1):

$$E_{1\text{cm}}^{1\%}(500 \text{ nm}) = \frac{A \times f}{m} \times \frac{1}{100} \dots\dots\dots (A.1)$$

In which:

A: absorbance value of the sample solution;

f: dilution factor;

m: mass of sample, measured in grams (g);

100: concentration conversion factor.

The experimental results shall be based on the arithmetic mean of the parallel measurement results. The absolute difference between two independent measurement results obtained under repetitive conditions shall not exceed 2.0% of the arithmetic mean.

## **A.4 Determination of pH Value**

### **A.4.1 Instruments and equipment**

Acidimeter.

### **A.4.2 Analysis steps**

Weigh 0.10 g of the sample, dissolve it in water with a pH of 5.0-7.0 that has been boiled and cooled (excluding carbon dioxide), and transfer it to a 100 mL volumetric flask. Adjust the volume and measure the pH value of the solution using an acidimeter.

**END TRANSLATION**

### **Attachments:**

No Attachments.