

ICS 67.040  
C 53



**NATIONAL STANDARD OF THE PEOPLE'S**

**REPUBLIC OF CHINA**

**中华人民共和国国家标准**

GB/T 5009.58-2003

Replace GB/T 5009.58-1996

---

**Method for analysis of hygienic standard of  
polyethylene resin for food packaging**

**食品包装用聚乙烯树脂卫生标准的分析方法**

**Issued on August 11, 2003**

**Implemented on January 01, 2004**

---

**Ministry of Health of the People's Republic of China**

**Issued by**

**Standardization Administration of the People's Republic of China**

## Contents

<b>Foreword</b> .....	1
<b>1. Scope</b> .....	2
<b>2. Sampling Method</b> .....	2
<b>3. Loss on Drying</b> .....	2
<b>3.1 Principle</b> .....	2
<b>3.2 Analysis steps</b> .....	2
<b>3.3 Calculation of the result</b> .....	2
<b>3.4 Precision</b> .....	3
<b>4. Residue of Ignition</b> .....	3
<b>4.1 Principle</b> .....	3
<b>4.2 Analysis steps</b> .....	3
<b>4.3 Calculation of the result</b> .....	3
<b>4.4 Precision</b> .....	3
<b>5. Hexane Extractive</b> .....	3
<b>5.1 Principle</b> .....	3
<b>5.2 Apparatus</b> .....	3
<b>5.3 Analysis steps</b> .....	3
<b>5.4 Calculation of the result</b> .....	4
<b>5.5 Precision</b> .....	4

## Foreword

This Standard will replace GB/T 5009.58-1996 *Method for analysis of hygienic standard of polyethylene resin for food packaging*.

Comparison with GB/T 5009.58-1996, main changes of this Standard as follows:

- Changed the structural of original standard based on GB/T 20001.4-2001 *Rules for drafting standards--Part 4: Methods of chemical analysis*.

This Standard is under the jurisdiction of Ministry of Health of the People's Republic of China.

This Standard is responsible by Shanghai Municipal Health Bureau.

This Standard is first issued on 1985, second issued on 1996, this is second version.

# Method for analysis of hygienic standard of polyethylene resin for food packaging

## 1. Scope

This standard specifies the method of measuring the hygiene indexes of polyvinyl reswhere is the raw material for making table wares, food containers, food packaging films, or other utensils used for food.

This standard is applicable to the measurement of the hygiene indexes of polyvinyl reswhere is the raw material for making table wares, containers, food packaging films, or other utensils used for food.

## 2. Sampling Method

The sample of each batch is 10% of the number of bales, and the sample should be no less than 3 bales when the batch is small. Among the selected bales, sampling tools such as sampling probe will be used to probe into the 3/4 of the depth of each bale to take samples, and the total amount of the sample should be no less than 2kg. The sample should be blended quickly, divided by quartering to be 500g per unit, and put into two clean and dry glass ground wide-mouth bottles. Labels, which the manufacturer's name, product name, batch number and sampling date are written should be stuck to the bottles. One bottle is sent to the laboratory for analyzing, and the other sealed and preserved for two months for the use of arbitration analysis.

## 3. Loss on Drying

### 3.1 Principle

The mass lost by the sample when being dried under 90°C--95°C is the weight loss on drying, showing the existence of volatile matter.

### 3.2 Analysis steps

Weigh 5.00g—10.00g of the sample, put it in a flat weighing bottle with constant weight, and its thickness should be no more than 5mm. Then, dry it under 90°C--95°C for two hours, and weigh it after 30min in the dryer. The weight loss on drying should be no more than 0.15g/100g.

### 3.3 Calculation of the result

See formula (1).

$$X = \frac{m_1 - m_2}{m_3} \times 100 \dots\dots\dots (1)$$

Where:

X---Sample' s weight loss on drying, the unit is gram per 100 gram (g/100g);

$m_1$ ---The mass of the sample and the weighing bottle, the unit is gram (g);

$m_2$ ---The mass of the sample and weighing bottle with constant weight, the unit is gram (g);

$m_3$ ---The mass of the sample, the unit is gram (g).

---

---

## 完整版本请在线下单

或咨询：

TEL: 400-678-1309

QQ: 19315219

Email: [info@lancarver.com](mailto:info@lancarver.com)

<http://www.lancarver.com>

---

---

## 线下付款方式：

### 1. 对公账户：

单位名称：北京文心雕语翻译有限公司

开户行：中国工商银行北京清河镇支行

账 号：0200 1486 0900 0006 131

---

---

### 2. 支付宝账户：[info@lancarver.com](mailto:info@lancarver.com)

---

---

注：付款成功后，请预留电邮，完整版本将在一个工作日内通过电子 PDF 或 Word 形式发送至您的预留邮箱，如需索取发票，下单成功后的三个工作日内安排开具并寄出，预祝合作愉快！

---