

Translated English of Chinese Standard: GB 8058-2003

www.ChineseStandard.net

Sales@ChineseStandard.net

ICS 81.060.01

Y 20

GB

National Standard of the People's Republic of China

GB 8058-2003

eqv ISO 8391-1:1986

eqv ISO 8391-2:1986

Replacing GB 8058-1987

Standard permissible limits and testing method for release of lead or cadmium from ceramic cookware

GB 8058-2003 How to BUY & immediately GET a full-copy of this standard?

1. www.ChineseStandard.net;
2. Search --> Add to Cart --> Checkout (3-steps);
3. No action is required - Full-copy of this standard will be automatically & immediately delivered to your EMAIL address in 0~25 minutes.
4. Support: Sales@ChineseStandard.net. Wayne, Sales manager

Issued on: June 13, 2003

Implemented on: December 1, 2003

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine**

Table of Contents

Foreword.....	3
1 Scope.....	4
2 Reference standards	4
3 Definitions.....	4
4 Permissible limits.....	5
5 Detection methods	5
6 Precision.....	9
7 Test report	9

Foreword

Chapter 4 of this Standard is mandatory content, the rest are recommended content.

This Standard is the revision of GB 8058-1987 "Standard permissible limits and testing method for release of lead or cadmium from ceramic cookware".

This Standard equivalently adopts international standards ISO 8391-1:1986 "Ceramic cookware in contact with food - Release of lead and cadmium - Part 1: Method of test" and ISO 8391-2:1983 "Ceramic cookware in contact with food - Release of lead and cadmium - Part 2: Permissible limits".

This Standard makes the following modifications to the technical content of GB 8058-1987:

- TIGHTEN the permissible limit indicators in Chapter 4;
- DELETE the Chapters 3, 5, 4, 2 of original standard;
- DEFINE more specific provisions about atomic absorption spectrophotometer.

This Standard was proposed by China Light Industry Federation.

This Standard shall be administrated by National Ceramic Standardization Center.

Drafting organizations of this Standard: Ceramic Research Institute of Light Industry, Jingdezhen University, and Jingdezhen Ceramic Institute.

Main drafters of this Standard: Shen Wei, Yao Jilie, Chen Benxing, Yu Jinbao, and Yu Xiaoqin.

This Standard was first released in June 1987.

From the date of implementation of this Standard, it shall replace GB 8058-1987.

Standard permissible limits and testing method for release of lead or cadmium from ceramic cookware

GB 8058-2003

eqv ISO 8391-1:1986

eqv ISO 8391-2:1986

Replacing GB 8058-1987

1 Scope

This Standard specifies the standard permissible limits and testing method for release of lead or cadmium from ceramic cookware.

This Standard applies to casserole, boiler, hot pot, wok, heating pot and other kinds of ceramic cooking products in contact with food.

2 Reference standards

The following standards contain provisions which, through reference in this Standard, become provisions of this Standard. At time of publication, the editions indicated are valid. All standards are subject to revision. The parties who are using this Standard shall explore the possibility of using the latest version of the following standards.

GB/T 6682-1992 Water for analytical laboratory use - Specification and test methods (neq ISO 3696: 1987)

3 Definitions

This Standard uses the following definition.

3.1

Ceramic cookware

The ceramic products that are used to heat and prepare food, but excluding

scale. SHAKE it well.

5.3.2 100mg/L of lead standard solution

Accurately TRANSFER 10mL of lead standard solution of which the concentration is 1000mg/L INTO 100-mL volumetric flask. DILUTE it with 4% acetic acid solution until it reaches the scale. SHAKE it well.

5.3.3 Series of lead standard solutions

Accurately TRANSFER 0.0, 0.5, 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0mL of lead standard solutions of which the concentration is 100mg/L. And PLACE them in 100-mL volumetric flasks respectively. DILUTE them with 4% acetic acid solution until they reach the scale. SHAKE well. The solutions contain 0.0, 0.5, 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0µg lead per milliliter respectively. REPLACE it by new solutions after being used for 4 weeks.

5.3.4 1000mg/L of cadmium standard solution

WEIGH and TAKE 1.1423g of cadmium oxide which has been baked at (105~110)°C for 2h, accurate to 0.0001g. PLACE it in 400-mL beaker. Warmly DISSOLVE it with 40mL of glacial acetic acid. COOL it down. MOVE it in 1000-mL volumetric flask. DILUTE it with distilled water until it reaches the scale. SHAKE it well.

5.3.5 10mg/L of cadmium standard solution

Accurately TRANSFER 10mL of cadmium standard solution of which the concentration is 1000mg/L INTO 1000-mL volumetric flask. DILUTE it with 4% acetic acid solution until it reaches the scale. SHAKE it well.

5.3.6 Series of cadmium standard solutions

Accurately TRANSFER 0.00, 0.50, 1.00, 2.00, 3.00, 4.00, 5.00mL of cadmium standard solutions of which the concentration is 10mg/L. And PLACE them in 100-mL volumetric flasks respectively. DILUTE them with 4% acetic acid solution until they reach the scale. SHAKE well. The solutions contain 0.00, 0.05, 1.00, 2.00, 3.00, 4.00, 5.00µg cadmium per milliliter respectively. REPLACE it by new solution after being used for 4 weeks.

from the standard curve directly.

5.5.4.2 Close interpolation method

According to the solution's probable content, TAKE upper-and-lower closely adjacent standard solution and test sample solution, and COMPARE and determine at the same time. WRITE down the reading values of absorbance (A) of each solution for three times or more. TAKE the average value. CALCULATE by the formula (2):

$$C = \frac{A - A_1}{A_2 - A_1} (C_2 - C_1) + C_1 \dots\dots\dots(2)$$

In the formula: C -- Absorbance of lead or cadmium in extract liquor;

A₁ -- Absorbance of standard solution with lower concentration;

A₂ -- Absorbance of standard solution with higher concentration;

C₁ -- Concentration of standard solution with lower concentration, mg/L;

C₂ -- Concentration of standard solution with higher concentration, mg/L.

6 Precision

The results of lead shall be accurate to 0.1mg/L;

The results of cadmium shall be accurate to 0.01mg/L.

7 Test report

The test report shall include the following content:

- a) Application organization, submission date, inspection nature;
- b) Sample's name, serial number, and required inspection items;
- c) Name and number of inspection standard;
- d) Inspection result;
- e) Inspector, inspector's signature, and seal of inspection organization;
- f) Reporting date of inspection result;
- g) Other explanations relevant to inspection result.

This is an excerpt of the PDF (Some pages are marked off intentionally)

Full-copy PDF can be purchased from 1 of 2 websites:

1. <https://www.ChineseStandard.us>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Select your country (currency), for example: USA (USD); Germany (Euro).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Tax invoice can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with download links).

2. <https://www.ChineseStandard.net>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Add to cart. Only accept USD (other currencies - <https://www.ChineseStandard.us>).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with PDFs attached, invoice and download links).

Translated by: Field Test Asia Pte. Ltd. (Incorporated & taxed in Singapore. Tax ID: 201302277C)

About Us (Goodwill, Policies, Fair Trading...): <https://www.chinesestandard.net/AboutUs.aspx>

Contact: Wayne Zheng, Sales@ChineseStandard.net

Linkin: <https://www.linkedin.com/in/waynezhengwenrui/>

----- The End -----